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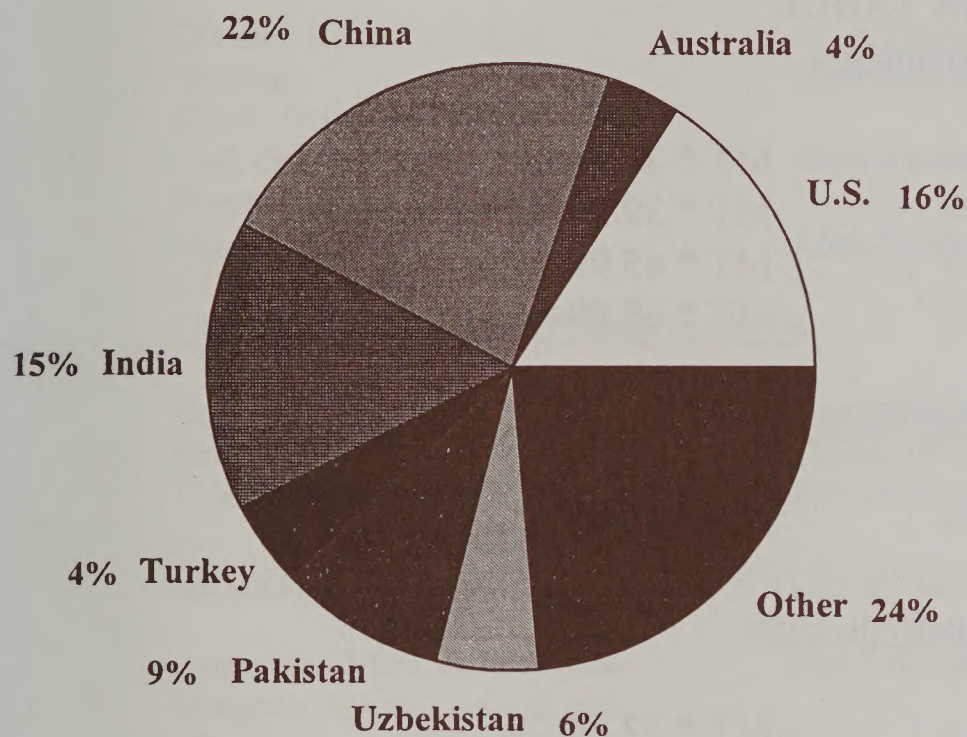
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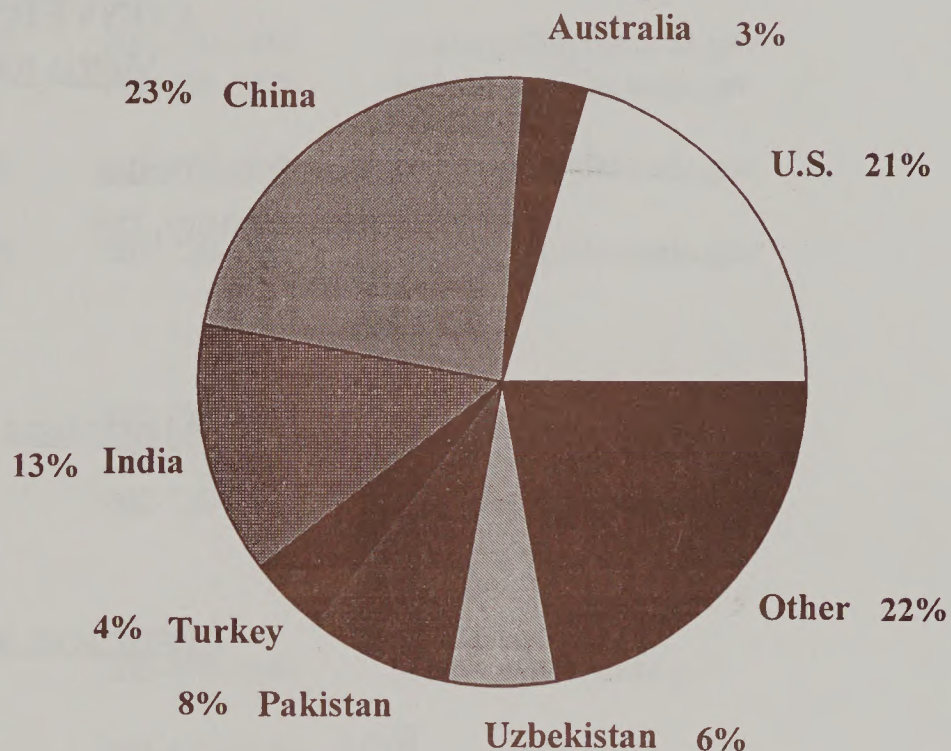
# World Agricultural Production

## Major World Cotton Producers as Percent of World Total

1998/99



1997/98



World cotton production for 1998/99 is forecast at 84.2 million 480-pound bales, down 8 percent from the 1997/98 crop. World area is forecast to decrease 2 percent while the yield is down 6 percent from a year ago. The world's largest cotton producers, the United States and China, are projected to account for 38 percent of global production, down from 44 percent last year. However, U. S. output accounts for most of the decline, falling from 21 percent last year to only 16 percent for 1998/99. The top seven producers, including the United States and China, are expected to contribute 76 percent of world cotton output compared with 78 percent in 1997/98.

Of the seven major producers, only India, Pakistan, and Australia are forecast to exceed last year's output level. Production in the other major producers was down from last year because of insect damage, disease, untimely cool temperatures, drought, and/or floods. This report highlights the top seven cotton producing nations which include the United States, China, India, Pakistan, Uzbekistan, Turkey, and Australia. These countries are estimated to produce 64.4 million bales of cotton this season and are ranked based on estimated production for 1998/99.



This report draws on information from USDA's global network of agricultural attaches and counselors, official statistics of foreign governments, other foreign source materials, and results of office analysis. Estimates of U.S. acreage, yield, and production are from the USDA's Agricultural Statistics Board, except where noted. This report is based on unrounded data; numbers may not add to totals because of rounding. This report reflects official USDA estimates released in the World Agricultural Supply and Demand Estimates (WASDE-345), December 11, 1998.

This report was prepared by the Production Estimates and Crop Assessment Division (PECAD), FAS/USDA, AgStop 1045, Washington, D.C. 20250-1045. Further information may be obtained by writing to the division, by calling (202) 720-0888, or by FAX (202) 720-8880.

**The next issue of World Agricultural Production will be released after 3:30 p.m. Eastern time on January 13, 1999.**

### CONVERSION TABLE

#### Metric tons to bushels

Wheat & soybeans	=	MT * 36.7437
Corn, sorghum, rye	=	MT * 39.36825
Barley	=	MT * 45.929625
Oats	=	MT * 68.894438

#### Metric tons to 480-lb bales

Cotton	=	MT * 4.592917
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#### Metric tons to hundredweight

Rice	=	MT * 22.04622
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#### Area & Weight

1 hectare	=	2.471044 acres
1 kilogram	=	2.204622 pounds

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National Agricultural Statistics Service at <http://www.usda.gov/nass>  
World Agricultural Outlook Board at <http://www.usda.gov/oce/waob>  
Economic Research Service at <http://www.econ.ag.gov>  
Joint Agricultural Weather Facility at <http://www.usda.gov/oce/waob/jawf>



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# PRODUCTION HIGHLIGHTS FOR 1998/99

December 1998

## WHEAT

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MMT	MMT	(%)	(%)	
World	585.8	-2.5	-0	-4	Production is forecast lower due to a reduction in the total foreign category.
United States	69.6	NC	NC	+1	Production is unchanged this month.
Total Foreign	516.2	-2.5	-0	-5	Production is forecast lower as reductions in Australia, Russia, India, and Argentina more than offset an increase in Canada.
Australia	21.0	-1.0	-5	+8	Production is forecast lower due to excessive rainfall in News South Wales and dry conditions in Victoria.
Russia	27.0	-1.0	-4	-39	Production is estimated lower due to harvest progress reports that indicate reduced yield.
India	66.1	-1.0	-1	-5	Production is forecast down based on official reports indicating lower yield, but higher area.
Argentina	10.0	-0.5	-5	-32	Production is forecast lower due to dryness in southern Buenos Aires province that reduced harvested area and yield potential.
Canada	24.4	+1.1	+5	+0	Production is estimated higher based on a Statistics Canada report indicating increased area and yield.



# COARSE GRAINS

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MMT	MMT	(%)	(%)	
World	882.2	-1.7	-0	-0	Production is forecast lower due to a reduction in the total foreign category.
United States	273.7	NC	NC	+3	Production is unchanged this month.
Total Foreign	608.5	-1.7	-0	-2	Production is forecast lower as decreases in Argentina, Brazil, Ukraine, and Russia more than offset increases in Canada, Romania, and South Africa.
Argentina	17.5	-1.5	-8	-29	Production is forecast lower as corn area and yield are reduced due to continued dry weather.
Brazil	34.3	-1.0	-3	+8	Production is forecast lower as dry weather at planting has forced producers to plant less corn area.
Ukraine	10.3	-0.8	-7	-33	Production is estimated lower due to harvest reports indicating lower yields.
Russia	20.9	-0.2	-1	-49	Production is estimated lower due to lower corn yield caused by drought.
Zambia	1.1	-0.2	-16	+49	Production is forecast lower as fertilizer and input shortages continue to plague producers.
Australia	8.1	-0.2	-2	-14	Production is forecast lower due to an ABARE report indicting a decrease in barley yield.
Canada	26.5	+1.3	+5	+6	Production is estimated higher due mainly to record corn yield and output as reported by Statistics Canada.
Romania	9.8	+0.6	+7	-35	Production is estimated up as preliminary harvest results indicate higher corn area and yield.
South Africa	9.6	+0.5	+6	+19	Production is forecast higher due to an upward adjustment in corn area due to favorable weather during planting.



# RICE (MILLED BASIS)

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MMT	MMT	(%)	(%)	
World	377.4	+0.7	+0	-2	Production is forecast higher due to an increase in the total foreign category.
United States	5.9	NC	NC	+1	Production is unchanged this month.
Total Foreign	371.5	+0.7	+0	-2	Production is forecast higher as increases in China, Vietnam, and South Korea more than offset decreases in India, Egypt, and Bangladesh.
China	133.0	+1.0	+1	-5	Production is forecast higher based on an increase in yield due to favorable rainfall and no reports of pest problems in the late-rice crop.
Vietnam	18.5	+0.5	+3	-2	Production is forecast higher, in part, due to reports of record yield for the 10 <sup>th</sup> month crop. Also, last season's output is revised higher.
South Korea	5.0	+0.3	+6	-8	Production is forecast higher due to an increase in potential yield. Typhoon damage was not as-bad-as previously estimated and reports of much higher input use buoyed production prospects.
India	81.0	-0.5	-1	-1	Production is forecast lower as heavy post monsoon rain at harvest negatively affected yield. In addition, last year's crop is revised lower based on official data.
Egypt	3.1	-0.4	-11	-15	Production is forecast lower as producers reduced area in expectation that government fines would be levied against expanded area. However, yield is at a record level due to increased use of high yielding varieties.
Bangladesh	17.8	-0.3	-1	-5	Production is forecast lower due to damages caused by excessive rainfall during the aman harvest and insect problems.



# OILSEEDS

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MMT	MMT	(%)	(%)	
World	288.0	-0.0	-0	+1	Production is estimated down slightly as a decrease in the total foreign category more than offset an increase in the United States.
United States	84.2	+0.1	+0	+1	Production is estimated up slightly due to higher cottonseed output.
Total Foreign	203.8	-0.1	-0	+1	Production is estimated lower as decreases in the Former Soviet Union and India more than offset increases in Canada, Argentina, and South Africa.
FSU-12	8.9	-0.7	-7	-3	Production is estimated lower based on harvest results indicating that Russian and Ukrainian sunflower yields were hurt more by the summer drought than previously estimated.
India	26.7	-0.4	-1	+10	Production is estimated lower due primarily to unfavorable weather that reduced peanut output. Cottonseed production is estimated higher, while soybean and rapeseed output are estimated lower.
Italy	2.1	-0.1	-5	+12	Production is estimated lower due to unfavorable growing and harvest weather for the soybean crop.
Canada	10.5	+0.5	+5	+14	Production is estimated higher based on a survey by Statistics Canada which showed higher area and yields for rapeseed and soybeans.
Argentina	24.8	+0.4	+2	-2	Production is forecast higher because of increased soybean planted area. Dry conditions in some areas caused producers to shift area into soybeans from corn.
South Africa	1.2	+0.4	+45	+33	Production is forecast higher based primarily on increased planting intentions for sunflowerseed.
Germany	3.4	+0.1	+3	+15	Production is estimated up based on a higher official rapeseed production estimate.



## PALM OIL

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MMT	MMT	(%)	(%)	
World	17.7	NC	NC	+5	No change this month. Production is estimated at a record.

## COTTON

----- 1998/99 -----

<u>Country</u>	<u>Current Estimate</u>	<u>Monthly Change</u>	<u>Monthly Change</u>	<u>Change from 1997/98</u>	<u>Comments</u>
	MBALES	MBALES	(%)	(%)	
World Total	84.2	+0.5	+1	-8	Production is forecast higher due to increases in the United States and the total foreign category.
United States	13.5	+0.2	+2	-28	Production is estimated up due to a slight increase in yield, mainly in Texas.
Total Foreign	70.8	+0.3	+0	-3	Production is forecast higher as increases in India and Australia more than offset losses in Egypt and other minor producers.
India	13.0	+0.5	+4	+6	Production is forecast higher due to record area and increased yield potential as favorable weather allowed for additional pickings in the central cotton zone states.
Australia	3.3	+0.1	+3	+8	Production is estimated up reflecting an increase in rain fed area due to abundant rainfall.
Egypt	1.1	-0.2	-13	-32	Production is forecast down due to decreased yield potential as unfavorable hot weather reduced yield potential during the latter portion of the growing season.



TABLE 1

## U.S. Crop Acreage, Yield, and Production

COMMODITY	Planted Area			Harvested Area			Yield				Production			
	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98
	--Million acres--			--Million acres--			--Bushels per acre--				--Million bushels--			
All Wheat	75.6	71.0	66.2	62.9	63.6	59.1	36.3	39.7	43.3	2,285	2,527	2,557	2,285	2,527
Winter	52.0	48.3	46.8	39.7	41.8	40.2	37.2	45.0	46.9	1,478	1,883	1,887	1,478	1,883
Other	23.6	22.7	19.4	23.2	21.8	18.9	34.8	29.5	35.4	807	644	670	807	644
Soybeans	64.2	70.6	72.7	63.4	69.6	71.6	37.6	38.8	38.6	2,382	2,703	2,763	2,382	2,703
Corn	79.5	80.2	80.8	73.1	73.7	73.8	127.1	127.0	133.3	9,293	9,366	9,836	9,293	9,366
Sorghum	13.2	10.1	9.7	11.9	9.4	7.8	67.5	69.5	66.5	803	653	521	803	653
Barley	7.1	6.9	6.5	6.8	6.4	6.0	58.5	58.3	59.9	396	374	358	396	374
Oats	4.7	5.2	4.9	2.7	2.9	2.8	57.8	60.5	60.5	155	176	170	155	176
							--Pounds per acre--				--Million CWT--			
Rice	2.8	3.1	3.2	2.8	3.0	3.2	6,121	5,896	5,660	171.3	178.9	180.4	171.3	178.9
											--Million 480-pound bales--			
All Cotton	14.6	13.8	12.9	12.9	13.3	10.4	707	680	612	18.9	18.8	13.2	18.9	18.8

December 1998

Production Estimates and Crop Assessment Division, FAS, USDA



**TABLE 2**  
**World Crop Production Summary**

Commodity	World	Total Foreign	North America		Europe		Asia				South America		Selected Other		All Others						
			United States	Canada Mexico	Europe Union	Oth. W. Europe	FSU-12	China	India	Indonesia	Pakistan	Thailand	Argentina	Brazil		Australia	South Africa	Turkey			
---Million metric tons---																					
Wheat																					
	1996/97	582.9	520.8	62.2	29.8	3.5	98.5	2.2	26.1	63.3	110.6	62.1	0.0	16.9	0.0	15.9	3.2	23.7	2.7	16.0	46.2
	1997/98 prel.	611.0	542.2	68.8	24.3	3.5	94.2	1.0	34.4	80.5	123.3	69.3	0.0	16.7	0.0	14.8	2.4	19.4	2.3	16.0	40.3
	1998/99 proj.																				
	Nov.	588.3	518.7	69.6	23.3	3.3	103.4	1.5	33.9	57.9	110.0	67.0	0.0	18.7	0.0	10.5	2.2	22.0	1.5	18.0	45.6
	Dec.	585.8	516.2	69.6	24.4	3.3	103.4	1.5	33.9	56.9	110.0	66.0	0.0	18.7	0.0	10.0	2.2	21.0	1.5	18.0	45.4
Coarse Grains																					
	1996/97	908.0	640.4	267.6	28.2	26.5	103.8	3.7	49.5	52.1	141.3	34.3	6.0	1.8	4.1	18.9	37.0	10.1	9.6	9.8	103.7
	1997/98 prel.	886.5	621.1	265.4	25.1	23.2	109.4	2.2	58.5	67.9	114.7	31.3	5.7	1.9	3.9	24.7	31.8	9.5	8.1	8.1	95.3
	1998/99 proj.																				
	Nov.	883.9	610.2	273.7	25.2	25.1	104.1	2.9	49.7	40.8	135.7	30.9	6.3	1.9	4.7	19.0	35.3	8.3	9.1	10.7	100.7
	Dec.	882.2	608.5	273.7	26.5	25.1	104.2	2.9	50.3	39.8	135.7	30.9	6.3	1.9	4.7	17.5	34.3	8.1	9.6	10.7	100.2
Rice (Milled)																					
	1996/97	380.2	374.7	5.5	0.0	0.3	1.6	0.0	0.0	0.7	136.6	81.3	32.1	4.3	13.7	0.8	6.5	1.0	0.0	0.3	95.7
	1997/98 prel.	384.1	378.3	5.8	0.0	0.3	1.7	0.0	0.0	0.8	140.5	82.1	30.2	4.4	15.1	0.7	5.8	1.0	0.0	0.2	95.6
	1998/99 proj.																				
	Nov.	376.6	370.7	5.9	0.0	0.3	1.6	0.0	0.0	0.8	132.0	81.5	33.0	4.6	15.0	0.8	6.8	0.9	0.0	0.2	93.2
	Dec.	377.4	371.5	5.9	0.0	0.3	1.6	0.0	0.0	0.8	133.0	81.0	33.0	4.6	15.0	0.9	6.8	0.9	0.0	0.2	93.3
Total Grains 1/																					
	1996/97	1871.1	1535.9	335.2	58.0	30.3	203.8	5.9	75.7	116.2	388.5	177.8	38.0	23.0	17.8	35.6	46.6	34.8	12.3	26.1	245.6
	1997/98 prel.	1881.6	1541.6	340.0	49.4	26.9	205.3	3.2	93.0	149.1	378.4	182.7	35.9	22.9	19.0	40.1	40.0	29.8	10.3	24.3	231.1
	1998/99 proj.																				
	Nov.	1848.8	1499.6	349.2	48.5	28.7	209.1	4.4	83.6	99.5	377.7	179.4	39.3	25.2	19.7	30.3	44.3	31.2	10.5	29.0	239.5
	Dec.	1845.3	1496.2	349.2	50.9	28.7	209.1	4.4	84.2	97.5	378.7	177.9	39.3	25.2	19.7	28.4	43.3	30.0	11.0	29.0	239.0
Oilseeds 2/																					
	1996/97	261.2	186.3	74.8	7.3	0.5	13.0	0.1	4.7	8.5	41.4	27.3	2.5	3.7	0.5	17.5	27.5	1.8	0.8	1.9	27.6
	1997/98 prel.	285.6	202.1	83.6	9.2	0.6	15.0	0.1	4.3	9.1	43.4	24.4	2.4	3.5	0.5	25.4	31.8	2.0	0.9	1.9	27.6
	1998/99 proj.																				
	Nov.	288.0	203.9	84.1	9.9	0.6	15.8	0.1	5.4	9.5	40.7	27.1	2.5	3.8	0.5	24.4	29.8	3.0	0.9	2.0	27.9
	Dec.	288.0	203.8	84.2	10.5	0.6	15.7	0.1	5.3	8.9	40.7	26.7	2.5	3.8	0.5	24.8	29.8	2.9	1.3	1.9	27.8
Cotton																					
	1996/97	89.6	70.6	18.9	0.0	1.1	1.9	0.0	0.0	6.6	19.3	13.9	0.0	7.3	0.0	1.5	1.3	2.8	0.2	3.6	11.1
	1997/98 prel.	91.4	72.6	18.8	0.0	1.0	2.1	0.0	0.0	7.2	21.1	12.3	0.0	7.0	0.0	1.4	1.8	3.1	0.2	3.7	11.8
	1998/99 proj.																				
	Nov.	83.7	70.5	13.2	0.0	1.0	2.1	0.0	0.0	6.8	18.8	12.5	0.0	7.5	0.0	1.5	1.8	3.2	0.2	3.7	11.3
	Dec.	84.2	70.7	13.5	0.0	1.0	2.1	0.0	0.0	6.6	18.8	13.0	0.0	7.5	0.0	1.5	1.8	3.3	0.2	3.7	11.1

1/ Includes wheat, coarse grains, and rice (milled) shown above.

2/ Includes soybean, cottonseed, peanut (inshell), sunflowerseed, rapeseed for individual countries. Copra and palm kernel are added to world totals.

Note: Entries of 0.0 indicate no reported or insignificant production.

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**TABLE 3**  
**Wheat Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent
	Million hectares				Metric tons per hectare				Million metric tons				MMT	Percent	MMT	Percent
World	231.20	229.88	225.14	225.88	2.52	2.66	2.61	2.59	582.95	610.98	588.30	585.77	-2.52	-0.43	-25.21	-4.13
United States	25.47	25.73	23.92	23.92	2.44	2.67	2.91	2.91	62.19	68.76	69.60	69.60	0.00	0.00	0.84	1.23
Total Foreign	205.73	204.15	201.22	201.96	2.53	2.66	2.58	2.56	520.76	542.21	518.69	516.17	-2.52	-0.49	-26.05	-4.80
Major Exporters	47.44	44.55	43.78	43.87	3.54	3.43	3.64	3.62	167.91	152.71	159.16	158.76	-0.40	-0.25	6.05	3.96
European Union	16.74	17.13	17.03	17.05	5.89	5.50	6.07	6.06	98.51	94.21	103.36	103.36	0.00	0.00	9.15	9.71
France	5.02	5.11	5.23	5.25	7.15	6.61	7.66	7.65	35.94	33.76	40.00	40.10	0.10	0.25	6.34	18.77
United Kingdom	1.98	2.04	2.10	2.10	8.15	7.39	7.38	7.38	16.10	15.05	15.50	15.50	0.00	0.00	0.45	2.99
Germany	2.59	2.72	2.79	2.79	7.29	7.29	7.20	7.20	18.92	19.83	20.10	20.10	0.00	0.00	0.27	1.38
Canada	12.26	11.41	10.60	10.77	2.43	2.13	2.20	2.27	29.80	24.28	23.30	24.40	1.10	4.72	0.12	0.49
Australia	11.34	10.31	11.45	11.45	2.09	1.88	1.92	1.83	23.70	19.42	22.00	21.00	-1.00	-4.55	1.58	8.15
Argentina	7.10	5.70	4.70	4.60	2.24	2.60	2.23	2.17	15.90	14.80	10.50	10.00	-0.50	-4.76	-4.80	-32.43
Major Importers	92.65	93.92	91.37	91.37	2.33	2.67	2.36	2.35	216.24	250.33	215.87	214.87	-1.00	-0.46	-35.46	-14.17
China	29.61	30.06	29.80	29.80	3.73	4.10	3.69	3.69	110.57	123.30	110.00	110.00	0.00	0.00	-13.30	-10.79
FSU-12	47.73	48.37	45.87	45.87	1.33	1.66	1.26	1.24	63.30	80.51	57.90	56.90	-1.00	-1.73	-23.61	-29.33
Russia	25.72	26.10	25.90	25.90	1.36	1.69	1.08	1.04	34.90	44.20	28.00	27.00	-1.00	-3.57	-17.20	-38.91
Ukraine	5.89	6.50	5.90	5.90	2.30	2.83	2.54	2.54	13.55	18.40	15.00	15.00	0.00	0.00	-3.40	-18.48
Kazakhstan	12.20	11.50	10.00	10.00	0.63	0.78	0.50	0.50	7.70	8.95	5.00	5.00	0.00	0.00	-3.95	-44.13
Baltic States	0.52	0.57	0.58	0.58	2.68	2.69	2.61	2.61	1.40	1.55	1.50	1.50	0.00	0.00	-0.04	-2.91
Eastern Europe	8.73	9.86	9.58	9.58	2.99	3.49	3.54	3.54	26.13	34.41	33.87	33.87	0.00	0.00	-0.54	-1.57
Poland	2.48	2.56	2.58	2.58	3.46	3.21	3.69	3.69	8.58	8.19	9.50	9.50	0.00	0.00	1.31	15.95
Romania	1.80	2.35	2.00	2.00	1.76	3.06	2.60	2.60	3.17	7.19	5.20	5.20	0.00	0.00	-1.99	-27.64
Egypt	1.02	1.04	1.05	1.05	5.64	5.60	5.71	5.71	5.74	5.85	6.00	6.00	0.00	0.00	0.15	2.56
Morocco	3.21	2.49	3.10	3.10	1.84	0.93	1.42	1.42	5.92	2.32	4.40	4.40	0.00	0.00	2.08	89.90
Brazil	1.83	1.52	1.40	1.40	1.74	1.58	1.57	1.57	3.20	2.40	2.20	2.20	0.00	0.00	-0.20	-8.33
Other Foreign	65.65	65.68	66.07	66.72	2.08	2.12	2.17	2.14	136.61	139.17	143.66	142.54	-1.13	-0.78	3.36	2.42
India	25.01	25.93	25.60	26.26	2.48	2.67	2.62	2.51	62.10	69.28	67.00	66.05	-0.95	-1.42	-3.23	-4.66
Turkey	8.45	8.50	8.60	8.60	1.89	1.88	2.09	2.09	16.00	16.00	18.00	18.00	0.00	0.00	2.00	12.50
Pakistan	8.38	8.11	8.40	8.40	2.02	2.05	2.23	2.23	16.91	16.65	18.70	18.70	0.00	0.00	2.05	12.31
Mexico	0.81	0.81	0.80	0.80	3.84	4.32	4.13	4.13	3.11	3.50	3.30	3.30	0.00	0.00	-0.20	-5.71
Saudi Arabia	0.27	0.34	0.34	0.34	4.53	5.36	5.37	5.37	1.20	1.80	1.80	1.80	0.00	0.00	0.00	0.00
South Africa	1.29	1.38	0.75	0.75	2.09	1.65	1.97	1.97	2.70	2.28	1.48	1.48	0.00	0.00	-0.81	-35.39
Others	21.44	20.61	21.59	21.57	1.61	1.44	1.55	1.54	34.60	29.67	33.39	33.21	-0.17	-0.52	3.55	11.96



TABLE 4

# **Total Coarse Grain Area, Yield, and Production** **World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent
	Million hectares				Metric tons per hectare				Million metric tons							
World	322.81	312.25	309.46	308.65	2.81	2.84	2.86	2.86	907.97	886.49	883.86	882.18	-1.68	-0.19	-4.31	-0.49
United States	38.38	37.55	36.78	36.78	6.97	7.07	7.44	7.44	267.56	265.42	273.67	273.67	0.00	0.00	8.25	3.11
Total Foreign	284.42	274.70	272.68	271.87	2.25	2.26	2.24	2.24	640.41	621.07	610.19	608.51	-1.68	-0.27	-12.56	-2.02
Major Exporters																
Canada	23.57	22.52	21.56	21.59	3.01	3.16	3.07	3.07	70.95	71.21	66.20	66.35	0.14	0.22	-4.86	-6.83
Argentina	8.00	7.59	7.34	7.38	3.52	3.31	3.43	3.59	28.19	25.12	25.15	26.50	1.34	5.35	1.38	5.50
Australia	4.66	4.67	4.35	4.15	4.06	5.28	4.36	4.21	18.93	24.67	18.99	17.49	-1.50	-7.90	-7.18	-29.12
South Africa	5.20	5.08	4.54	4.54	1.95	1.86	1.83	1.79	10.15	9.47	8.31	8.11	-0.20	-2.41	-1.36	-14.39
Thailand	4.34	3.94	3.97	4.16	2.21	2.05	2.28	2.30	9.58	8.06	9.06	9.56	0.50	5.52	1.50	18.65
	1.36	1.24	1.36	1.36	3.01	3.15	3.46	3.46	4.10	3.90	4.70	4.70	0.00	0.00	0.80	20.51
Major Importers																
FSU-12	86.76	87.35	81.72	81.28	2.72	3.02	2.74	2.75	236.34	263.43	224.19	223.78	-0.41	-0.18	-39.65	-15.05
Russia	38.28	39.38	34.26	33.66	1.36	1.72	1.19	1.18	52.15	67.87	40.81	39.81	-1.00	-2.45	-28.06	-41.34
Ukraine	24.76	25.19	21.80	21.80	1.28	1.62	0.97	0.96	31.65	40.85	21.10	20.90	-0.20	-0.95	-19.95	-48.84
Kazakhstan	5.34	6.80	6.36	5.76	1.78	2.26	1.75	1.79	9.51	15.35	11.10	10.30	-0.80	-7.21	-5.05	-32.90
Baltic States	4.55	3.96	2.69	2.69	0.71	0.80	0.52	0.52	3.23	3.16	1.39	1.39	0.00	0.00	-1.77	-56.01
European Union	1.20	1.23	1.23	1.23	2.20	2.25	2.24	2.24	2.65	2.77	2.76	2.76	0.00	0.00	-0.01	-0.33
Germany	19.64	20.47	19.86	19.85	5.28	5.34	5.24	5.25	103.75	109.39	104.13	104.15	0.02	0.02	-5.24	-4.79
France	4.11	4.30	4.22	4.22	5.64	5.97	5.74	5.74	23.21	25.66	24.24	24.24	0.00	0.00	-1.42	-5.53
Eastern Europe	3.67	3.99	3.88	3.89	7.07	7.32	7.02	7.18	25.96	29.21	27.26	27.96	0.70	2.57	-1.25	-4.28
Poland	16.30	16.33	15.94	16.12	3.04	3.58	3.12	3.12	49.52	58.54	49.68	50.28	0.60	1.21	-8.26	-14.11
Romania	6.24	6.34	6.28	6.28	2.68	2.71	2.77	2.77	16.72	17.21	17.38	17.38	0.00	0.00	0.17	0.97
Czech Rep.	4.04	3.88	3.73	3.90	2.74	3.86	2.46	2.50	11.06	14.95	9.16	9.76	0.60	6.55	-5.20	-34.77
Mexico	0.76	0.84	0.76	0.76	3.73	3.79	3.68	3.68	2.85	3.19	2.78	2.78	0.00	0.00	-0.42	-13.12
Other W. Europe	10.97	9.57	10.08	10.08	2.42	2.42	2.49	2.49	26.49	23.16	25.10	25.10	0.00	0.00	1.94	8.38
	0.38	0.37	0.35	0.35	4.74	4.58	4.83	4.78	1.79	1.70	1.71	1.67	-0.04	-2.22	-0.03	-1.65
Other Foreign																
China	174.10	164.82	169.40	169.00	1.91	1.74	1.89	1.88	333.12	286.43	319.80	318.39	-1.41	-0.44	31.95	11.16
India	29.10	28.05	28.50	28.50	4.86	4.09	4.76	4.76	141.32	114.65	135.65	135.65	0.00	0.00	21.00	18.31
Brazil	32.16	31.07	31.45	31.45	1.07	1.01	0.98	0.98	34.35	31.28	30.90	30.90	0.00	0.00	-0.38	-1.20
Turkey	14.48	12.19	13.59	13.29	2.55	2.61	2.60	2.58	36.99	31.81	35.31	34.31	-1.00	-2.83	2.50	7.86
Indonesia	4.63	4.73	4.68	4.68	2.12	2.12	2.29	2.29	9.83	10.03	10.73	10.73	0.00	0.00	0.70	6.98
Philippines	3.20	2.90	3.20	3.20	1.86	1.97	1.97	1.97	5.95	5.70	6.30	6.30	0.00	0.00	0.60	10.53
Others	2.72	2.40	2.75	2.75	1.55	1.48	1.53	1.53	4.22	3.55	4.20	4.20	0.00	0.00	0.65	18.31
	87.80	83.49	85.23	85.13	1.14	1.07	1.13	1.13	100.46	89.42	96.71	96.30	-0.41	-0.42	6.88	7.70

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**TABLE 5**  
**Corn Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent
	Million hectares				Metric tons per hectare				Million metric tons							
World	141.02	136.41	139.40	139.08	4.19	4.24	4.29	4.29	591.44	578.06	597.35	597.04	-0.31	-0.05	18.98	3.28
United States	29.60	29.83	29.86	29.86	7.97	7.97	8.37	8.37	236.06	237.90	249.85	249.85	0.00	0.00	11.95	5.02
Total Foreign	111.42	106.58	109.54	109.22	3.19	3.19	3.17	3.18	355.38	340.16	347.50	347.19	-0.31	-0.09	7.03	2.07
Major Exporters																
Argentina	7.96	7.21	7.20	7.20	3.57	4.24	3.89	3.75	28.41	30.61	28.00	27.00	-1.00	-3.57	-3.61	-11.79
South Africa	3.40	3.18	3.00	2.80	4.56	6.10	5.00	4.82	15.50	19.36	15.00	13.50	-1.50	-10.00	-5.86	-30.27
Thailand	3.36	2.96	3.00	3.20	2.68	2.55	2.83	2.81	9.01	7.55	8.50	9.00	0.50	5.88	1.45	19.21
	1.20	1.08	1.20	1.20	3.25	3.43	3.75	3.75	3.90	3.70	4.50	4.50	0.00	0.00	0.80	21.62
Major Importers																
Eastern Europe	21.56	21.91	21.06	21.09	3.92	4.49	3.86	3.89	84.51	98.41	81.30	82.07	0.77	0.95	-16.35	-16.61
Romania	7.15	6.87	6.79	6.92	3.58	4.64	3.57	3.58	25.55	31.89	24.23	24.73	0.50	2.06	-7.16	-22.44
Yugoslavia	3.29	3.03	3.00	3.13	2.92	4.18	2.50	2.56	9.61	12.68	7.50	8.00	0.50	6.67	-4.68	-36.91
European Union	2.10	2.08	2.08	2.08	3.62	4.67	3.86	3.86	7.60	9.70	8.00	8.00	0.00	0.00	-1.70	-17.53
France	4.10	4.28	4.06	4.07	8.50	9.02	8.16	8.36	34.79	38.60	33.16	34.06	0.90	2.71	-4.54	-11.76
Italy	1.72	1.84	1.80	1.80	8.41	9.10	7.94	8.22	14.43	16.75	14.30	14.80	0.50	3.50	-1.95	-11.66
Mexico	1.02	1.04	0.94	0.94	9.33	9.79	9.15	9.15	9.55	10.14	8.60	8.60	0.00	0.00	-1.54	-15.16
FSU-12	8.23	7.40	7.70	7.70	2.30	2.30	2.34	2.34	18.92	17.00	18.00	18.00	0.00	0.00	1.00	5.88
Russia	2.00	3.28	2.44	2.34	2.37	3.19	2.25	2.09	4.73	10.46	5.49	4.89	-0.60	-10.94	-5.57	-53.28
Ukraine	0.62	0.85	0.80	0.80	1.78	3.18	1.50	1.25	1.10	2.70	1.20	1.00	-0.20	-16.67	-1.70	-62.96
Other W. Europe	0.67	1.65	0.80	0.70	2.74	3.21	2.50	2.29	1.84	5.30	2.00	1.60	-0.40	-20.00	-3.70	-69.81
Others	0.02	0.03	0.03	0.02	8.96	8.80	8.60	8.41	0.22	0.22	0.22	0.19	-0.03	-13.95	-0.04	-15.91
	0.07	0.06	0.05	0.05	4.49	4.48	4.41	4.41	0.29	0.25	0.20	0.20	0.00	0.00	-0.05	-19.12
Other Foreign																
China	81.90	77.46	81.28	80.93	2.96	2.73	2.93	2.94	242.46	211.14	238.21	238.13	-0.08	-0.03	26.98	12.78
Brazil	24.50	23.78	24.25	24.25	5.20	4.39	5.11	5.11	127.47	104.30	124.00	124.00	0.00	0.00	19.70	18.89
India	13.88	11.60	13.00	12.70	2.61	2.67	2.65	2.64	36.16	31.00	34.50	33.50	-1.00	-2.90	2.50	8.06
Canada	6.25	6.31	6.10	6.10	1.70	1.76	1.56	1.56	10.61	11.09	9.50	9.50	0.00	0.00	-1.59	-14.32
Indonesia	1.06	1.01	1.08	1.12	6.98	7.10	7.04	7.96	7.38	7.18	7.59	8.90	1.31	17.31	1.72	23.96
Philippines	3.20	2.90	3.20	3.20	1.86	1.97	1.97	1.97	5.95	5.70	6.30	6.30	0.00	0.00	0.60	10.53
Egypt	2.72	2.40	2.75	2.75	1.55	1.48	1.53	1.53	4.22	3.55	4.20	4.20	0.00	0.00	0.65	18.31
Zimbabwe	0.88	0.84	0.94	0.94	6.65	7.18	6.74	6.74	5.83	6.01	6.30	6.30	0.00	0.00	0.29	4.83
Others	1.64	1.23	1.45	1.45	1.10	1.22	1.31	1.31	1.80	1.50	1.90	1.90	0.00	0.00	0.40	26.67
	27.79	27.40	28.52	28.43	1.55	1.49	1.54	1.53	43.05	40.81	43.92	43.53	-0.39	-0.90	2.71	6.64

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**TABLE 6**  
**Barley Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Million hectares				Metric tons per hectare				Million metric tons				MMT			
	1996/97	1997/98	1998/99 Proj.		1996/97	1997/98	1998/99 Proj.		1996/97	1997/98	1998/99 Proj.		From last month		From last year	
World	66.45	65.53	61.00	60.55	2.32	2.37	2.27	2.28	153.86	155.05	138.76	137.77	-1.00	-0.72	-17.28	-11.15
United States	2.74	2.60	2.42	2.42	3.15	3.14	3.22	3.22	8.62	8.15	7.80	7.80	0.00	0.00	-0.35	-4.34
Total Foreign	63.71	62.93	58.58	58.13	2.28	2.33	2.24	2.24	145.24	146.89	130.96	129.97	-1.00	-0.76	-16.93	-11.52
European Union	11.38	11.83	11.36	11.35	4.55	4.44	4.64	4.57	51.72	52.54	52.74	51.90	-0.83	-1.58	-0.64	-1.22
Denmark	0.74	0.72	0.67	0.67	5.36	5.40	5.70	5.32	3.95	3.89	3.80	3.55	-0.25	-6.58	-0.34	-8.67
France	1.53	1.68	1.60	1.61	6.25	6.06	6.56	6.63	9.54	10.18	10.50	10.70	0.20	1.90	0.52	5.10
Germany	2.21	2.27	2.18	2.18	5.47	5.89	5.75	5.75	12.07	13.40	12.50	12.50	0.00	0.00	-0.90	-6.71
Italy	0.36	0.34	0.34	0.34	3.76	3.25	3.68	3.68	1.35	1.09	1.25	1.25	0.00	0.00	0.16	14.68
Spain	3.53	3.71	3.59	3.59	2.72	2.32	3.06	3.06	9.60	8.60	11.00	11.00	0.00	0.00	2.40	27.91
United Kingdom	1.27	1.33	1.27	1.27	6.14	5.91	5.20	5.20	7.78	7.85	6.60	6.60	0.00	0.00	-1.25	-15.92
FSU-12	20.54	20.96	17.51	17.01	1.35	1.63	1.11	1.14	27.76	34.11	19.49	19.39	-0.10	-0.51	-14.72	-43.15
Russia	11.85	12.60	10.00	10.00	1.34	1.65	0.95	0.95	15.90	20.80	9.50	9.50	0.00	0.00	-11.30	-54.33
Ukraine	3.43	3.70	4.00	3.50	1.67	2.00	1.58	1.77	5.73	7.40	6.30	6.20	-0.10	-1.59	-1.20	-16.22
Kazakhstan	3.60	3.20	2.10	2.10	0.75	0.81	0.48	0.48	2.70	2.60	1.00	1.00	0.00	0.00	-1.60	-61.54
Baltic States	0.81	0.83	0.83	0.83	2.30	2.33	2.33	2.33	1.87	1.94	1.93	1.93	0.00	0.00	-0.01	-0.52
Eastern Europe	3.32	3.65	3.39	3.44	2.88	3.30	3.10	3.09	9.56	12.04	10.51	10.61	0.10	0.95	-1.43	-11.92
Poland	1.13	1.24	1.20	1.20	3.04	3.11	3.00	3.00	3.44	3.87	3.60	3.60	0.00	0.00	-0.27	-6.88
Czech Rep.	0.60	0.65	0.58	0.58	3.77	3.84	3.66	3.66	2.26	2.49	2.13	2.13	0.00	0.00	-0.36	-14.49
Romania	0.50	0.62	0.50	0.55	2.22	3.06	2.60	2.55	1.11	1.89	1.30	1.40	0.10	7.69	-0.49	-25.89
Canada	4.89	4.70	4.26	4.27	3.18	2.88	2.98	2.97	15.56	13.53	12.66	12.70	0.04	0.30	-0.83	-6.11
Other W. Europe	0.23	0.23	0.21	0.21	4.49	4.33	4.72	4.72	1.03	0.97	0.97	0.97	0.00	0.00	-0.01	-0.72
Norway	0.18	0.18	0.16	0.16	3.83	3.77	4.05	4.05	0.67	0.66	0.64	0.64	0.00	0.00	-0.02	-3.03
Turkey	3.65	3.70	3.60	3.60	1.97	1.97	2.17	2.17	7.20	7.30	7.80	7.80	0.00	0.00	0.50	6.85
Australia	3.41	3.46	3.00	3.00	2.00	1.86	1.83	1.77	6.81	6.43	5.50	5.30	-0.20	-3.64	-1.13	-17.54
China	1.30	1.30	1.20	1.20	3.08	3.08	2.92	2.92	4.00	4.00	3.50	3.50	0.00	0.00	-0.50	-12.50
Morocco	2.43	2.00	2.30	2.30	1.58	0.66	0.87	0.87	3.83	1.32	2.00	2.00	0.00	0.00	0.68	51.06
India	0.82	0.76	0.85	0.85	1.83	1.89	2.00	2.00	1.51	1.44	1.70	1.70	0.00	0.00	0.26	18.38
Others	10.94	9.51	10.08	10.08	1.32	1.18	1.21	1.21	14.39	11.27	12.17	12.17	-0.00	-0.00	0.90	7.99

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**TABLE 7**  
**Oats Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Million hectares				Metric tons per hectare				Million metric tons				MMT			
	1996/97	Prel. 1997/98	Nov. 1998/99 Proj.	Dec. 1998/99 Proj.	1996/97	Prel. 1997/98	Nov. 1998/99 Proj.	Dec. 1998/99 Proj.	1996/97	Prel. 1997/98	Nov. 1998/99 Proj.	Dec. 1998/99 Proj.	From last month	From last year	MMT	Percent
World	17.69	17.04	16.48	16.45	1.73	1.83	1.62	1.61	30.59	31.15	26.68	26.54	-0.14	-0.51	-0.14	-14.79
United States	1.09	1.18	1.14	1.14	2.07	2.17	2.17	2.17	2.25	2.56	2.47	2.47	0.00	0.00	0.00	-3.52
Total Foreign	16.60	15.86	15.34	15.32	1.71	1.80	1.58	1.57	28.34	28.60	24.21	24.08	-0.14	-0.56	-0.14	-15.80
FSU-12	8.17	7.79	7.25	7.25	1.23	1.47	1.04	1.01	10.03	11.48	7.51	7.31	-0.20	-2.66	-0.20	-36.31
Russia	6.93	6.50	6.00	6.00	1.20	1.45	0.92	0.92	8.30	9.40	5.50	5.50	0.00	0.00	0.00	-41.49
Ukraine	0.48	0.55	0.63	0.63	1.51	1.82	1.76	1.44	0.73	1.00	1.10	0.90	-0.20	-18.18	-0.20	-10.00
Belarus	0.30	0.34	0.30	0.30	2.33	2.06	2.33	2.33	0.70	0.70	0.70	0.70	0.00	0.00	0.00	0.00
Baltic States	0.16	0.16	0.16	0.16	2.04	2.13	2.13	2.13	0.32	0.34	0.34	0.34	0.00	0.00	0.00	1.19
Maj. Foreign Exporters	3.02	2.72	2.69	2.67	2.11	2.05	2.05	2.07	6.37	5.58	5.52	5.51	-0.01	-0.18	-0.01	-1.20
Canada	1.68	1.50	1.62	1.59	2.59	2.32	2.46	2.49	4.36	3.49	3.97	3.96	-0.01	-0.25	0.47	13.57
Australia	1.09	0.93	0.80	0.80	1.56	1.70	1.50	1.50	1.70	1.58	1.20	1.20	0.00	0.00	0.00	-24.05
Argentina	0.25	0.29	0.28	0.28	1.24	1.76	1.27	1.27	0.31	0.51	0.35	0.35	0.00	0.00	-0.16	-31.37
Other Foreign	5.62	5.56	5.62	5.62	2.29	2.24	2.12	2.12	12.87	12.44	11.94	11.89	-0.05	-0.42	-0.55	-4.44
China	0.50	0.45	0.55	0.55	1.20	0.89	1.18	1.18	0.60	0.40	0.65	0.65	0.00	0.00	0.25	62.50
European Union	1.94	1.99	1.91	1.91	3.56	3.35	3.25	3.29	6.89	6.66	6.22	6.29	0.07	1.21	-0.37	-5.52
France	0.14	0.13	0.14	0.14	4.41	4.24	4.70	4.70	0.62	0.56	0.64	0.64	0.00	0.00	0.07	12.59
Germany	0.30	0.31	0.26	0.26	5.32	5.16	4.94	4.94	1.61	1.60	1.30	1.30	0.00	0.00	-0.30	-18.70
Italy	0.14	0.14	0.14	0.14	2.46	1.98	2.45	2.45	0.35	0.28	0.34	0.34	0.00	0.00	0.07	23.64
Finland	0.37	0.37	0.38	0.38	3.37	3.37	2.89	2.59	1.26	1.24	1.10	0.98	-0.13	-11.36	-0.27	-21.56
Sweden	0.28	0.32	0.31	0.31	4.32	4.05	3.23	3.87	1.20	1.28	1.00	1.20	0.20	20.00	-0.07	-5.88
Eastern Europe	1.16	1.15	1.11	1.11	2.19	2.33	2.21	2.21	2.54	2.68	2.45	2.45	0.00	0.00	-0.23	-8.67
Czech Rep.	0.07	0.08	0.06	0.06	3.24	3.17	3.17	3.17	0.21	0.25	0.19	0.19	0.00	0.00	-0.06	-23.08
Poland	0.63	0.63	0.60	0.60	2.53	2.60	2.50	2.50	1.58	1.63	1.50	1.50	0.00	0.00	-0.13	-7.98
Yugoslavia	0.13	0.13	0.13	0.13	1.85	1.85	1.84	1.84	0.24	0.24	0.23	0.23	0.00	0.00	-0.01	-4.17
Norway	0.10	0.09	0.10	0.10	4.18	3.90	3.94	3.94	0.40	0.36	0.38	0.38	0.00	0.00	0.02	4.13
Turkey	0.15	0.14	0.15	0.15	1.72	1.79	1.72	1.72	0.25	0.25	0.25	0.25	0.00	0.00	0.00	0.00
Others	1.41	1.37	1.43	1.43	0.66	0.62	0.63	0.63	0.93	0.85	0.90	0.90	0.00	0.00	0.05	6.01

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**TABLE 8**  
**Rye Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Prel.				Prel.				Prel.				From last month			
	1996/97	1997/98	1998/99 Proj.	Dec.	1996/97	1997/98	1998/99 Proj.	Dec.	1996/97	1997/98	1998/99 Proj.	Dec.	From last month	From last year		
	Million hectares				Metric tons per hectare				Million metric tons				MMT		Percent	
World	10.76	10.41	10.69	10.69	2.06	2.35	2.05	2.03	22.23	24.44	21.97	21.71	-0.25	-1.15	-2.72	-11.15
United States	0.14	0.14	0.18	0.18	1.64	1.64	1.77	1.77	0.23	0.23	0.33	0.33	0.00	0.00	0.10	44.25
Total Foreign	10.62	10.27	10.51	10.51	2.07	2.36	2.06	2.04	22.00	24.21	21.64	21.39	-0.25	-1.17	-2.82	-11.67
FSU-12	5.96	5.67	5.71	5.71	1.51	1.94	1.33	1.29	9.00	11.02	7.57	7.37	-0.20	-2.64	-3.65	-33.12
Russia	4.13	4.00	4.00	4.00	1.43	1.88	1.13	1.13	5.90	7.50	4.50	4.50	0.00	0.00	-3.00	-40.00
Ukraine	0.63	0.70	0.74	0.74	1.75	1.93	1.90	1.63	1.10	1.35	1.40	1.20	-0.20	-14.29	-0.15	-11.11
Belarus	1.05	0.89	0.90	0.90	1.81	2.36	1.78	1.78	1.90	2.10	1.60	1.60	0.00	0.00	-0.50	-23.81
Baltic States	0.23	0.24	0.24	0.24	1.98	2.08	2.04	2.04	0.46	0.49	0.49	0.49	0.00	0.00	-0.00	-0.61
Major Exporter																
Canada	0.16	0.16	0.20	0.20	1.91	1.98	2.00	1.95	0.31	0.32	0.39	0.40	0.01	2.05	0.08	24.38
Other Foreign	4.27	4.21	4.36	4.35	2.86	2.94	3.03	3.02	12.22	12.38	13.19	13.13	-0.06	-0.46	0.75	6.06
Eastern Europe	2.66	2.55	2.59	2.59	2.32	2.33	2.51	2.51	6.16	5.93	6.50	6.50	0.00	0.00	0.56	9.47
Hungary	0.07	0.07	0.07	0.07	1.43	2.00	1.79	1.79	0.10	0.14	0.13	0.13	0.00	0.00	-0.02	-10.71
Poland	2.42	2.30	2.35	2.35	2.34	2.31	2.51	2.51	5.65	5.30	5.90	5.90	0.00	0.00	0.60	11.32
Czech Rep.	0.06	0.08	0.08	0.08	3.19	3.41	3.47	3.47	0.20	0.26	0.26	0.26	0.00	0.00	0.00	0.39
European Union	1.32	1.34	1.45	1.45	4.30	4.51	4.33	4.32	5.68	6.03	6.28	6.24	-0.04	-0.56	0.21	3.45
Denmark	0.07	0.08	0.11	0.11	4.76	5.39	4.76	4.76	0.34	0.45	0.50	0.50	0.00	0.00	0.05	10.38
France	0.05	0.05	0.05	0.05	4.59	4.40	4.56	4.56	0.23	0.21	0.21	0.21	0.00	0.00	-0.00	-0.97
Germany	0.81	0.85	0.93	0.93	5.21	5.41	5.10	5.10	4.21	4.58	4.74	4.74	0.00	0.00	0.16	3.49
Spain	0.17	0.15	0.15	0.15	1.74	1.48	1.50	1.50	0.30	0.23	0.23	0.23	0.00	0.00	0.00	0.00
Austria	0.05	0.06	0.06	0.06	2.96	3.63	3.64	3.64	0.15	0.21	0.20	0.20	0.00	0.00	-0.01	-3.38
Sweden	0.03	0.03	0.04	0.04	5.52	5.17	5.00	4.57	0.18	0.15	0.18	0.16	-0.02	-8.57	0.01	6.67
Turkey	0.18	0.18	0.18	0.18	1.39	1.39	1.39	1.39	0.25	0.25	0.25	0.25	0.00	0.00	0.00	0.00
Others	0.11	0.14	0.14	0.13	1.15	1.17	1.21	1.05	0.13	0.16	0.17	0.14	-0.03	-15.76	-0.02	-12.58

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**TABLE 9**  
**Sorghum Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change in Production			
	Prel.				Prel.				Prel.				From last month			
	1996/97	1997/98	1998/99 Proj.	Dec.	1996/97	1997/98	1998/99 Proj.	Dec.	1996/97	1997/98	1998/99 Proj.	Dec.	From last month	From last year	From last year	From last year
	Million hectares				Metric tons per hectare				Million metric tons				MMT	Percent	MMT	Percent
World	45.21	41.49	40.83	40.81	1.53	1.42	1.46	1.46	69.31	58.82	59.73	59.71	-0.01	-0.03	0.89	1.51
United States	4.82	3.80	3.17	3.17	4.24	4.37	4.17	4.17	20.40	16.59	13.23	13.23	0.00	0.00	-3.36	-20.23
Total Foreign	40.40	37.69	37.66	37.64	1.21	1.12	1.23	1.23	48.92	42.23	46.49	46.48	-0.01	-0.03	4.25	10.05
India	11.57	11.04	11.50	11.50	0.96	0.75	0.87	0.87	11.09	8.24	10.00	10.00	0.00	0.00	1.77	21.43
China	1.29	1.08	1.10	1.10	4.39	3.36	4.09	4.09	5.68	3.64	4.50	4.50	0.00	0.00	0.86	23.63
Mexico	2.32	1.80	2.00	2.00	2.95	3.11	3.25	3.25	6.86	5.60	6.50	6.50	0.00	0.00	0.90	16.07
Nigeria	6.45	6.50	6.60	6.60	1.02	1.07	1.11	1.11	6.60	6.93	7.30	7.30	0.00	0.00	0.37	5.34
Sudan	6.60	5.70	5.00	5.00	0.64	0.60	0.74	0.74	4.20	3.40	3.70	3.70	0.00	0.00	0.30	8.82
Argentina	0.68	0.79	0.75	0.75	3.70	4.80	4.00	4.00	2.50	3.77	3.00	3.00	0.00	0.00	-0.77	-20.42
Australia	0.56	0.56	0.60	0.60	2.15	1.89	2.00	2.00	1.21	1.07	1.20	1.20	0.00	0.00	0.14	12.68
Ethiopia	1.85	1.45	1.60	1.60	1.08	0.90	1.06	1.06	2.00	1.30	1.70	1.70	0.00	0.00	0.40	30.77
Colombia	0.10	0.06	0.04	0.04	3.05	2.50	3.00	3.00	0.29	0.15	0.12	0.12	0.00	0.00	-0.03	-20.00
Venezuela	0.20	0.26	0.25	0.25	2.16	1.56	1.63	1.63	0.44	0.41	0.40	0.40	0.00	0.00	-0.01	-2.44
Egypt	0.14	0.16	0.16	0.16	4.35	4.91	4.97	4.97	0.60	0.77	0.77	0.77	0.00	0.00	0.00	0.52
Yemen	0.38	0.38	0.38	0.38	0.97	0.96	1.00	1.00	0.37	0.36	0.38	0.38	0.00	0.00	0.02	4.46
Tanzania	0.69	0.63	0.50	0.50	0.87	0.80	0.85	0.85	0.60	0.50	0.43	0.43	0.00	0.00	-0.08	-15.00
Niger	1.50	1.40	1.40	1.40	0.27	0.30	0.30	0.30	0.40	0.43	0.43	0.43	0.00	0.00	0.00	0.00
South Africa	0.16	0.13	0.14	0.13	2.20	2.14	2.14	2.14	0.36	0.28	0.30	0.30	0.00	0.00	0.02	7.14
Thailand	0.16	0.16	0.16	0.16	1.25	1.25	1.25	1.25	0.20	0.20	0.20	0.20	0.00	0.00	0.00	0.00
Others	5.75	5.59	5.49	5.48	0.96	0.93	1.02	1.01	5.53	5.20	5.58	5.56	-0.01	-0.27	0.36	6.92

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**TABLE 10**  
**Rice Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield (Rough)				Production (Milled)				Change in Production			
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent
World United States Total Foreign  Major Exporters Vietnam Thailand Burma Pakistan  Major Importers Indonesia South Korea European Union Iran Nigeria  Other Foreign China India Bangladesh Japan Brazil Philippines Egypt Taiwan FSU-12 Russia Australia Others	Million hectares				Metric tons per hectare				Million metric tons				MMT	Percent	MMT	Percent
	149.74	149.59	149.14	149.45	3.76	3.80	3.74	3.74	380.18	384.13	376.63	377.36	0.73	0.19	-6.77	-1.76
	1.13	1.23	1.29	1.29	6.86	6.61	6.34	6.34	5.45	5.84	5.89	5.89	0.00	0.00	0.05	0.82
	148.61	148.36	147.85	148.16	3.74	3.78	3.72	3.72	374.72	378.29	370.74	371.47	0.73	0.20	-6.82	-1.80
	24.07	24.45	24.43	24.48	2.91	3.00	2.98	3.01	44.97	47.19	46.85	47.35	0.50	1.07	0.16	0.35
	7.04	7.37	7.15	7.20	3.87	3.88	3.81	3.89	18.00	18.87	18.00	18.50	0.50	2.78	-0.37	-1.97
	9.18	9.27	9.25	9.25	2.26	2.46	2.45	2.45	13.66	15.05	14.95	14.95	0.00	0.00	-0.10	-0.66
	5.60	5.49	5.60	5.60	2.77	2.80	2.86	2.86	9.00	8.90	9.30	9.30	0.00	0.00	0.40	4.49
	2.25	2.32	2.43	2.43	2.87	2.83	2.84	2.84	4.31	4.36	4.60	4.60	0.00	0.00	0.24	5.41
	15.67	15.55	15.89	15.85	4.12	3.98	4.11	4.15	43.18	41.38	43.51	43.78	0.27	0.62	2.40	5.81
	11.14	11.06	11.40	11.40	4.43	4.21	4.45	4.45	32.08	30.23	33.00	33.00	0.00	0.00	2.78	9.18
	1.05	1.05	1.06	1.06	6.78	7.00	6.02	6.38	5.32	5.45	4.70	5.00	0.30	6.38	-0.45	-8.26
	0.41	0.41	0.40	0.40	5.94	6.21	6.34	6.34	1.58	1.66	1.62	1.62	0.00	0.00	-0.04	-2.46
	0.60	0.60	0.60	0.60	4.00	4.00	4.38	4.38	1.60	1.60	1.75	1.75	0.00	0.00	0.15	9.37
	1.66	1.65	1.65	1.65	1.96	1.87	1.87	1.87	1.95	1.85	1.85	1.85	0.00	0.00	0.00	0.00
	108.87	108.35	107.53	107.83	4.12	4.19	4.08	4.08	286.57	289.72	280.38	280.34	-0.04	-0.01	-9.38	-3.24
	31.41	31.77	31.10	31.10	6.21	6.32	6.06	6.11	136.57	140.49	132.00	133.00	1.00	0.76	-7.49	-5.33
	43.28	43.09	42.30	42.70	2.82	2.86	2.89	2.85	81.31	82.12	81.50	81.00	-0.50	-0.61	-1.12	-1.36
	10.41	10.62	10.40	10.40	2.72	2.63	2.60	2.56	18.88	18.63	18.00	17.75	-0.25	-1.39	-0.88	-4.70
	1.98	1.95	1.78	1.78	6.54	6.42	6.11	6.11	9.41	9.12	7.90	7.90	0.00	0.00	-1.22	-13.41
3.57	3.20	3.80	3.80	2.66	2.67	2.63	2.63	6.46	5.80	6.80	6.80	0.00	0.00	1.00	17.24	
3.91	3.55	3.80	3.80	2.86	2.80	2.79	2.79	7.27	6.45	6.90	6.90	0.00	0.00	0.45	6.98	
0.59	0.63	0.63	0.50	8.29	8.39	8.05	8.93	2.99	3.59	3.45	3.06	-0.39	-11.30	-0.53	-14.86	
0.35	0.36	0.36	0.36	5.55	5.62	5.56	5.56	1.42	1.47	1.41	1.41	0.00	0.00	-0.06	-4.09	
0.48	0.45	0.45	0.45	2.24	2.64	2.67	2.67	0.70	0.76	0.77	0.77	0.00	0.00	0.01	1.05	
0.17	0.16	0.16	0.16	2.36	2.07	2.07	2.07	0.25	0.22	0.22	0.22	0.00	0.00	0.00	0.00	
0.17	0.14	0.15	0.15	8.36	9.41	8.44	8.24	0.99	0.96	0.88	0.90	0.02	2.29	-0.06	-6.28	
12.72	12.60	12.78	12.79	3.01	3.03	3.02	2.97	20.56	20.34	20.78	20.86	0.08	0.39	0.52	2.55	

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## TABLE 11

1/ Major oilseeds plus copra and palm kernel. 2/ Individual countries and regions include soybean, cottonseed, sunflowerseed, and rapeseed.



**TABLE 12**  
**Soybean Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production			Change in Production				
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent
		Million hectares			Metric tons per hectare				Million metric tons							
World	63.17	69.59	70.63	71.12	2.09	2.24	2.18	2.17	131.73	156.19	153.66	154.13	0.47	0.31	-2.06	-1.32
United States	25.66	28.16	28.96	28.96	2.53	2.61	2.60	2.60	64.84	73.55	75.19	75.19	0.00	0.00	1.63	2.22
Total Foreign	37.51	41.43	41.67	42.16	1.78	1.99	1.88	1.87	66.89	82.64	78.47	78.94	0.47	0.60	-3.70	-4.47
Major Exporters																
Brazil	19.20	21.30	21.10	21.30	2.12	2.46	2.30	2.31	40.77	52.50	48.60	49.10	0.50	1.03	-3.40	-6.48
Argentina	11.80	13.00	12.80	12.80	2.27	2.38	2.27	2.27	26.80	31.00	29.00	29.00	0.00	0.00	-2.00	-6.45
Paraguay	6.20	7.00	7.10	7.30	1.81	2.67	2.32	2.33	11.20	18.70	16.50	17.00	0.50	3.03	-1.70	-9.09
	1.20	1.30	1.20	1.20	2.31	2.15	2.58	2.58	2.77	2.80	3.10	3.10	0.00	0.00	0.30	10.71
Other Foreign	18.31	20.13	20.57	20.86	1.43	1.50	1.45	1.43	26.12	30.14	29.87	29.84	-0.03	-0.09	-0.30	-0.98
China	7.47	8.35	8.00	8.00	1.77	1.76	1.69	1.69	13.22	14.73	13.50	13.50	0.00	0.00	-1.23	-8.34
India	5.00	5.60	6.10	6.35	0.82	0.96	0.95	0.90	4.10	5.35	5.80	5.70	-0.10	-1.72	0.35	6.54
Canada	0.86	1.05	0.98	0.98	2.52	2.57	2.62	2.81	2.17	2.70	2.55	2.75	0.20	7.84	0.05	1.85
Indonesia	1.18	1.15	1.25	1.25	1.24	1.22	1.20	1.20	1.46	1.40	1.50	1.50	0.00	0.00	0.10	7.14
Eastern Europe	0.20	0.17	0.25	0.27	1.69	2.17	2.01	1.71	0.34	0.36	0.50	0.46	-0.04	-8.02	0.10	28.21
European Union	0.34	0.46	0.53	0.53	3.39	3.44	3.45	3.26	1.14	1.57	1.84	1.74	-0.10	-5.59	0.17	10.70
FSU-12	0.55	0.46	0.50	0.50	0.62	0.74	0.72	0.72	0.34	0.34	0.36	0.36	0.00	0.00	0.02	6.53
Russia	0.49	0.40	0.44	0.44	0.58	0.69	0.68	0.68	0.28	0.28	0.30	0.30	0.00	0.00	0.02	7.14
Ukraine	0.03	0.01	0.02	0.02	0.80	1.29	1.00	1.00	0.02	0.02	0.02	0.02	0.00	0.00	0.00	11.11
Mexico	0.05	0.12	0.12	0.12	1.17	1.47	1.46	1.46	0.06	0.18	0.18	0.18	0.00	0.00	0.00	0.00
Thailand	0.26	0.26	0.27	0.27	1.41	1.25	1.30	1.30	0.36	0.33	0.35	0.35	0.00	0.00	0.03	7.69
North Korea	0.33	0.33	0.33	0.33	1.23	1.08	1.23	1.23	0.40	0.35	0.40	0.40	0.00	0.00	0.05	14.29
Japan	0.08	0.08	0.10	0.10	1.80	1.75	1.75	1.75	0.15	0.15	0.18	0.18	0.00	0.00	0.03	20.69
Bolivia	0.55	0.63	0.63	0.63	1.83	2.00	1.98	1.98	1.00	1.26	1.25	1.25	0.00	0.00	-0.01	-0.79
South Korea	0.10	0.10	0.10	0.10	1.63	1.56	1.60	1.60	0.16	0.16	0.16	0.16	0.00	0.00	0.00	2.56
Colombia	0.04	0.03	0.03	0.03	2.00	1.67	2.00	2.00	0.07	0.05	0.06	0.06	0.00	0.00	0.01	20.00
Others	1.32	1.36	1.39	1.40	0.88	0.91	0.90	0.90	1.15	1.23	1.25	1.26	0.01	1.20	0.03	2.68

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TABLE 13

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**TABLE 14**  
**Peanut Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area			Yield			Production			Change in Production	
	Prel.			Prel.			Prel.			From last month	
	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	From last month	From last year
	Million hectares			Metric tons per hectare			Million metric tons			MMT	Percent
World	20.60	20.17	21.23	1.38	1.33	1.32	28.44	26.72	27.61	-0.48	-1.71
United States	0.56	0.57	0.60	2.98	2.81	2.82	1.66	1.60	1.68	0.00	0.00
Total Foreign	20.04	19.60	20.59	1.34	1.28	1.28	26.78	25.12	25.92	-0.48	-1.82
China	3.62	3.72	3.80	2.80	2.59	2.68	10.14	9.65	10.20	0.00	0.00
India	7.81	7.20	8.10	1.15	1.05	1.02	9.02	7.58	7.90	-0.40	-4.82
Indonesia	0.63	0.66	0.66	1.56	1.52	1.52	0.99	1.00	1.00	0.00	0.00
Senegal	0.92	0.79	0.78	0.70	0.70	0.71	0.65	0.55	0.55	0.00	0.00
Burma	0.52	0.53	0.53	1.10	1.11	1.09	0.57	0.59	0.58	0.00	0.00
Sudan	0.55	0.55	0.55	0.67	0.67	0.67	0.37	0.37	0.37	0.00	0.00
Zaire	0.73	0.73	0.73	0.77	0.77	0.79	0.56	0.56	0.58	0.00	0.00
Argentina	0.28	0.39	0.40	1.09	1.67	1.50	0.30	0.65	0.50	-0.10	-16.67
Nigeria	0.65	0.70	0.75	0.50	0.50	0.50	0.33	0.35	0.38	0.00	0.00
Vietnam	0.26	0.26	0.26	1.31	1.31	1.31	0.34	0.34	0.34	0.00	0.00
South Africa	0.10	0.06	0.07	1.47	1.64	1.43	0.14	0.10	0.12	0.02	20.00
Thailand	0.10	0.10	0.10	1.49	1.50	1.50	0.15	0.15	0.15	0.00	0.00
Burkina Faso	0.25	0.24	0.25	0.80	0.83	0.84	0.20	0.20	0.21	0.00	0.00
Brazil	0.09	0.09	0.09	1.55	1.67	1.67	0.14	0.15	0.15	0.00	0.00
Central African Rep.	0.10	0.10	0.10	0.94	1.00	1.00	0.09	0.10	0.10	0.00	0.00
Cameroon	0.42	0.42	0.42	0.41	0.41	0.41	0.17	0.17	0.17	0.00	0.00
Cote d'Ivoire	0.14	0.14	0.14	1.07	1.04	1.04	0.15	0.15	0.15	0.00	0.00
Mexico	0.08	0.08	0.09	1.40	1.50	1.53	0.11	0.12	0.13	0.00	0.00
Gambia	0.06	0.08	0.08	0.72	0.85	0.80	0.05	0.06	0.06	0.00	0.00
Others	2.74	2.76	2.74	0.85	0.83	0.84	2.32	2.28	2.29	-0.00	-0.00

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TABLE 15

# Sunflowerseed Area, Yield, and Production

## World and Selected Countries and Regions

Country/Region	Area			Yield			Production			Change in Production			
	Prel.			Prel.			Prel.			From last month		From last year	
	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	1996/97	1997/98	1998/99 Proj.	MMT	Percent	MMT	Percent
							Metric tons per hectare			Million metric tons			
World	19.79	19.78	21.27	21.61	1.21	1.21	1.21	1.25	1.21	23.88	23.94	26.49	26.22
United States	1.01	1.15	1.34	1.34	1.61	1.48	1.57	1.57	1.57	1.63	1.71	2.10	2.10
Total Foreign	18.78	18.63	19.93	20.27	1.19	1.19	1.22	1.19	1.19	22.25	22.23	24.39	24.12
FSU-12	6.47	6.06	6.67	6.67	0.80	0.90	0.90	0.90	0.81	5.20	5.46	6.03	5.43
Russia	3.89	3.58	4.10	4.10	0.71	0.79	0.80	0.68	0.68	2.77	2.83	3.30	2.80
Ukraine	2.11	2.00	2.10	2.10	1.01	1.15	1.14	1.10	1.10	2.12	2.30	2.40	2.30
Argentina	2.90	3.25	3.75	3.75	1.86	1.69	1.79	1.79	1.79	5.40	5.50	6.70	6.70
European Union	2.35	2.32	2.24	2.23	1.65	1.75	1.70	1.72	1.72	3.89	4.06	3.81	3.83
France	0.92	0.90	0.79	0.79	2.19	2.21	2.22	2.22	2.22	2.00	1.98	1.75	1.75
Spain	0.99	0.97	1.00	1.00	1.15	1.41	1.30	1.30	1.30	1.14	1.37	1.30	1.30
Italy	0.26	0.30	0.28	0.28	1.99	1.67	1.96	1.96	1.96	0.52	0.51	0.55	0.55
Eastern Europe	2.14	1.94	2.09	2.09	1.42	1.22	1.35	1.35	1.35	3.04	2.38	2.82	2.82
Hungary	0.48	0.45	0.48	0.48	1.68	1.22	1.67	1.67	1.67	0.80	0.55	0.80	0.80
Romania	0.91	0.78	0.82	0.82	1.30	1.10	1.18	1.18	1.18	1.18	0.86	0.97	0.97
Yugoslavia	0.23	0.20	0.22	0.22	1.87	1.65	1.82	1.82	1.82	0.43	0.33	0.40	0.40
Bulgaria	0.45	0.45	0.49	0.49	1.09	1.11	0.98	0.98	0.98	0.49	0.50	0.48	0.48
Czech Rep.	0.02	0.02	0.02	0.02	1.95	2.24	2.00	2.00	2.00	0.04	0.05	0.05	0.05
China	0.69	0.72	0.70	0.70	1.92	1.64	1.79	1.79	1.79	1.33	1.18	1.25	1.25
India	2.00	2.10	2.20	2.20	0.66	0.67	0.68	0.68	0.68	1.32	1.40	1.50	1.50
Turkey	0.54	0.50	0.52	0.52	1.01	1.30	1.35	1.25	1.25	0.55	0.65	0.70	0.65
South Africa	0.46	0.51	0.50	0.85	0.97	1.09	1.00	1.00	1.00	0.45	0.56	0.50	0.85
Australia	0.14	0.09	0.15	0.15	1.21	1.07	1.10	1.10	1.10	0.17	0.10	0.16	0.16
Burma	0.22	0.24	0.24	0.24	0.73	0.75	0.75	0.75	0.75	0.16	0.18	0.18	0.18
Others	0.87	0.90	0.87	0.87	0.88	0.86	0.85	0.87	0.87	0.76	0.77	0.73	0.75
										-0.60	-9.95	-0.03	-0.57
										-0.50	-15.15	-0.03	-1.10
										-0.10	-4.17	0.00	0.00
										0.00	0.00	1.20	21.82
										0.01	0.31	-0.23	-5.74
										0.00	0.00	-0.23	-11.62
										0.00	0.00	-0.07	-4.90
										0.00	0.00	0.04	8.06
										0.00	0.00	0.44	18.42
										0.00	0.00	0.26	46.79
										0.00	0.00	0.11	13.05
										0.00	0.00	0.07	21.21
										0.00	0.00	-0.02	-4.00
										0.00	0.00	-0.00	-2.13
										0.00	0.00	0.07	6.29
										0.00	0.00	0.10	7.14
										-0.05	-7.14	0.00	0.00
										0.35	70.00	0.29	52.60
										0.00	0.00	0.06	63.27
										0.00	0.00	0.00	0.00
										0.02	2.72	-0.01	-1.95

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TABLE 16

# Rapeseed Area, Yield, and Production

## World and Selected Countries and Regions

Country/Region	Area						Yield						Production						Change in Production			
	Prel.			1998/99 Proj.			Prel.			1998/99 Proj.			Prel.			1998/99 Proj.			From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MMT	Percent	MMT	Percent		
	Million hectares						Metric tons per hectare						Million metric tons									
World	22.14	23.75	25.22	25.49					1.43	1.40	1.45	1.44		31.61	33.32	36.65	36.77	0.12	0.33	3.45	10.36	
United States	0.14	0.28	0.44	0.44					1.55	1.47	1.48	1.48		0.22	0.42	0.65	0.65	0.00	0.00	0.24	56.49	
Total Foreign	22.00	23.46	24.78	25.05					1.43	1.40	1.45	1.44		31.39	32.90	36.00	36.12	0.12	0.33	3.22	9.77	
India	6.86	6.70	6.40	6.60					1.01	0.74	0.97	0.92		6.94	4.94	6.20	6.10	-0.10	-1.61	1.17	23.61	
China	6.73	6.48	6.70	6.70					1.37	1.48	1.24	1.24		9.20	9.58	8.30	8.30	0.00	0.00	-1.28	-13.34	
Canada	3.45	4.87	5.35	5.40					1.47	1.31	1.36	1.41		5.06	6.39	7.30	7.60	0.30	4.11	1.21	18.88	
European Union	2.65	2.81	3.09	3.11					2.76	3.08	3.06	3.05		7.33	8.65	9.47	9.49	0.02	0.21	0.84	9.76	
France	0.87	0.97	1.10	1.10					3.32	3.51	3.36	3.36		2.87	3.40	3.70	3.70	0.00	0.00	0.30	8.82	
Germany	0.85	0.91	1.00	1.00					2.52	3.14	3.20	3.30		2.15	2.87	3.20	3.30	0.10	3.12	0.43	15.10	
United Kingdom	0.41	0.47	0.51	0.53					3.41	3.23	3.24	2.96		1.41	1.53	1.65	1.57	-0.08	-4.85	0.05	2.95	
Denmark	0.11	0.10	0.12	0.12					2.37	2.82	2.75	2.75		0.25	0.29	0.33	0.33	0.00	0.00	0.04	12.63	
Sweden	0.07	0.06	0.06	0.06					2.11	1.95	1.98	1.98		0.14	0.12	0.13	0.13	0.00	0.00	0.00	1.63	
Eastern Europe	0.69	0.74	0.87	0.87					1.83	2.05	2.32	2.32		1.27	1.52	2.03	2.03	0.00	0.00	0.51	33.49	
Poland	0.28	0.32	0.45	0.45					1.59	1.88	2.33	2.33		0.45	0.60	1.05	1.05	0.00	0.00	0.46	76.47	
Czech Rep.	0.23	0.23	0.27	0.27					2.30	2.46	2.64	2.64		0.52	0.56	0.70	0.70	0.00	0.00	0.14	24.78	
Australia	0.42	0.69	1.15	1.15					1.52	1.26	1.48	1.39		0.64	0.86	1.70	1.60	-0.10	-5.88	0.74	86.05	
FSU-12	0.31	0.27	0.31	0.31					0.70	0.75	0.77	0.77		0.21	0.21	0.24	0.24	0.00	0.00	0.03	14.63	
Russia	0.17	0.12	0.15	0.15					0.66	0.62	0.67	0.67		0.11	0.07	0.10	0.10	0.00	0.00	0.03	40.85	
Pakistan	0.32	0.34	0.33	0.33					0.80	0.84	0.85	0.85		0.26	0.29	0.28	0.28	0.00	0.00	-0.01	-2.10	
Bangladesh	0.34	0.34	0.34	0.34					0.73	0.73	0.74	0.74		0.25	0.25	0.25	0.25	0.00	0.00	0.00	1.63	
Others	0.24	0.24	0.24	0.24					0.97	0.96	0.96	0.96		0.23	0.23	0.23	0.23	0.00	0.00	0.00	0.00	

December 1998

Production Estimates and Crop Assessment Division, FAS, USDA

**TABLE 17**  
**Copra, Palm Kernel, and Palm Oil Production**  
**World and Selected Countries and Regions**

Country/Region	Production				Change in Production			
	1996/97	Prel. 1997/98	1998/99 Proj.		From last month		From last year	
	Million metric tons				MMT	Percent	MMT	Percent
COPRA								
World	5.82	5.61	5.38	5.38	0.00	0.00	-0.23	-4.05
Philippines	2.25	2.25	2.00	2.00	0.00	0.00	-0.25	-11.11
Indonesia	1.93	1.70	1.70	1.70	0.00	0.00	0.00	0.00
India	0.65	0.68	0.70	0.70	0.00	0.00	0.02	2.94
Mexico	0.21	0.21	0.22	0.22	0.00	0.00	0.01	2.87
Sri Lanka	0.07	0.07	0.07	0.07	0.00	0.00	0.00	0.00
Vietnam	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00
Malaysia	0.03	0.03	0.03	0.03	0.00	0.00	-0.00	-9.37
Others	0.55	0.54	0.54	0.54	0.00	0.00	0.00	0.00
PALM KERNEL								
World	5.32	5.16	5.40	5.40	0.00	0.00	0.24	4.61
Malaysia	2.63	2.55	2.65	2.65	0.00	0.00	0.10	3.92
Indonesia	1.59	1.48	1.62	1.62	0.00	0.00	0.14	9.46
Nigeria	0.26	0.25	0.25	0.25	0.00	0.00	0.00	0.00
Cote d'Ivoire	0.06	0.06	0.07	0.07	0.00	0.00	0.00	6.35
Colombia	0.08	0.08	0.08	0.08	0.00	0.00	0.00	2.63
Thailand	0.09	0.11	0.08	0.08	0.00	0.00	-0.03	-23.36
Zaire	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00
Ecuador	0.03	0.04	0.04	0.04	0.00	0.00	0.00	11.11
Others	0.55	0.57	0.58	0.58	0.00	0.00	0.01	2.30
PALM OIL								
World	17.59	16.87	17.66	17.66	0.00	0.00	0.79	4.65
Malaysia	9.01	8.50	8.80	8.80	0.00	0.00	0.30	3.53
Indonesia	5.39	5.00	5.50	5.50	0.00	0.00	0.50	10.00
Nigeria	0.60	0.59	0.59	0.59	0.00	0.00	0.00	0.00
Cote d'Ivoire	0.29	0.30	0.32	0.32	0.00	0.00	0.02	6.67
Colombia	0.41	0.44	0.45	0.45	0.00	0.00	0.01	2.27
Thailand	0.40	0.47	0.36	0.36	0.00	0.00	-0.11	-23.40
Zaire	0.12	0.12	0.12	0.12	0.00	0.00	0.00	0.00
Ecuador	0.20	0.23	0.25	0.25	0.00	0.00	0.03	11.11
Others	1.19	1.23	1.27	1.27	0.00	0.00	0.04	3.25



**TABLE 18**  
**Cotton Area, Yield, and Production**  
**World and Selected Countries and Regions**

Country/Region	Area				Yield				Production				Change In Production			
	Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		Prel.		1998/99 Proj.		From last month		From last year	
	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	1996/97	1997/98	Nov.	Dec.	MBales	Percent	MBales	Percent
	Million hectares				Kilograms per hectare				Million 480 lb. bales							
World	33.78	33.52	32.55	32.75	577	594	560	560	89.56	91.39	83.69	84.20	0.51	0.61	-7.19	-7.87
United States	5.21	5.37	4.20	4.20	792	762	686	697	18.94	18.79	13.23	13.45	0.22	1.67	-5.34	-28.42
Total Foreign	28.57	28.15	28.35	28.54	538	562	541	540	70.62	72.60	70.45	70.75	0.29	0.41	-1.85	-2.55
Major Exporters	15.77	15.81	15.61	15.62	667	713	690	685	48.27	51.79	49.48	49.16	-0.32	-0.65	-2.63	-5.07
China	4.72	4.50	4.50	4.50	890	1,021	910	910	19.30	21.10	18.80	18.80	0.00	0.00	-2.30	-10.90
Pakistan	3.15	2.96	2.90	2.90	506	515	563	563	7.32	7.00	7.50	7.50	0.00	0.00	0.50	7.14
Sudan	0.28	0.27	0.20	0.20	358	329	327	327	0.46	0.40	0.30	0.30	0.00	0.00	-0.10	-25.00
Turkey	0.74	0.72	0.70	0.70	1,055	1,116	1,151	1,151	3.60	3.70	3.70	3.70	0.00	0.00	0.00	0.00
FSU-12	2.50	2.46	2.53	2.53	572	638	587	570	6.57	7.21	6.82	6.62	-0.20	-2.86	-0.59	-8.18
Uzbekistan	1.49	1.48	1.50	1.50	705	778	668	668	4.81	5.30	4.60	4.60	0.00	0.00	-0.70	-13.21
Turkmenistan	0.45	0.45	0.48	0.48	310	411	458	435	0.64	0.85	1.00	0.95	-0.05	-5.00	0.10	11.76
Other	0.57	0.53	0.55	0.55	432	436	478	421	1.12	1.06	1.22	1.07	-0.15	-11.93	0.01	0.94
Egypt	0.39	0.37	0.30	0.28	882	902	871	816	1.57	1.55	1.20	1.05	-0.15	-12.50	-0.50	-32.26
African Franc Zone	1.91	2.24	2.27	2.27	418	420	415	412	3.67	4.32	4.32	4.29	-0.03	-0.58	-0.03	-0.58
Southern Hemisphere	2.08	2.29	2.22	2.25	606	620	672	669	5.78	6.51	6.85	6.90	0.05	0.73	0.39	5.94
Argentina	0.88	0.80	0.70	0.70	369	367	467	467	1.49	1.35	1.50	1.50	0.00	0.00	0.15	11.11
Australia	0.40	0.44	0.47	0.52	1,535	1,523	1,482	1,382	2.79	3.06	3.20	3.30	0.10	3.12	0.24	7.74
Brazil	0.70	0.85	0.85	0.85	403	448	461	461	1.29	1.75	1.80	1.80	0.00	0.00	0.05	2.86
Paraguay	0.11	0.20	0.20	0.18	429	381	381	373	0.21	0.35	0.35	0.30	-0.05	-14.29	-0.05	-14.29
Major Importers	0.55	0.55	0.56	0.56	789	861	847	844	1.99	2.17	2.17	2.17	0.00	0.00	-0.01	-0.37
Other Foreign	12.25	11.79	12.18	12.37	362	344	336	342	20.36	18.64	18.81	19.42	0.61	3.25	0.78	4.20
India	9.12	8.85	9.05	9.17	332	302	301	309	13.92	12.26	12.50	13.00	0.50	4.00	0.74	6.05
Others	3.13	2.94	3.13	3.20	448	473	438	437	6.44	6.38	6.31	6.42	0.11	1.76	0.04	0.64

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Production Estimates and Crop Assessment Division, FAS, USDA

**TABLE 19**

The table below presents a 17-year record of the differences between the December projection and the final estimate. Using world wheat production as an example, changes between the December projection and the final estimate have averaged 4.3 million tons (0.8 percent) and ranged from -10.2 to 6.1 million tons. The December projection has been below the final 10 times and above the final 7 times.

**RELIABILITY OF PRODUCTION PROJECTIONS**

COMMODITY AND REGION	PROJECTION AND FINAL ESTIMATES, 1981/82 - 1997/98 1/					
	Difference		Lowest	Highest	Below	Above
	Average	Average	Difference		Final	Final
	Percent	---Million metric tons---			Number of years 2/	
<b>WHEAT</b>						
World	0.8	4.3	-10.2	6.1	10	7
U.S.	0.3	0.2	-1.2	0.5	9	6
Foreign	0.9	4.3	-10.3	6.3	10	7
<b>COARSE GRAINS 3/</b>						
World	1.0	7.8	-19.8	6.9	10	7
U.S.	1.1	2.4	-7.5	5.8	12	5
Foreign	1.3	7.3	-16.3	7.6	8	9
<b>RICE (Milled)</b>						
World	1.8	5.8	-16.2	1.1	14	3
U.S.	2.6	0.1	-0.3	0.2	8	7
Foreign	1.8	5.8	-16.2	1.2	14	3
<b>SOYBEANS</b>						
World	2.3	2.5	-6.6	3.8	9	8
U.S.	2.0	1.0	-2.7	2.1	6	11
Foreign	3.9	2.1	-7.5	2.7	8	9
			---Million 480-lb. bales---			
<b>COTTON</b>						
World	2.5	2.1	-6.3	4.4	7	9
U.S.	1.4	0.2	-0.5	0.4	7	9
Foreign	3.0	2.1	-6.7	4.3	7	9
<b>UNITED STATES</b>			-----Million bushels-----			
<b>CORN</b>	1.2	81	-250	159	11	5
<b>SORGHUM</b>	2.5	18	-53	52	9	8
<b>BARLEY</b>	1.3	6	-12	24	7	7
<b>OATS</b>	0.9	4	-18	16	6	5

1/ The final estimate for 1981/82-1996/97 is defined as the first November estimate following the marketing year.

2/ May not total 17 if projection was the same as the final.

3/ Includes corn, sorghum, barley, oats, rye, millet, and mixed grain.

December 1998

Production Estimates and Crop Assessment Division, FAS, USDA



## WORLD AGRICULTURAL WEATHER HIGHLIGHTS

December 11, 1998

**1 - UNITED STATES**

Above-normal temperatures prevailed nearly nationwide, especially during the last 10 days of November, promoting final summer crop harvesting and winter wheat establishment. Increasingly wet weather arrived in the Pacific Northwest after mid-November, benefiting the region's major winter wheat areas. Meanwhile, cool, occasionally showery weather in California's San Joaquin Valley further delaying cotton harvesting. Farther east, intensifying drought stretched through a fifth month in the Mid-Atlantic region, extending into parts of the Ohio Valley and Southeast. An exception to the Eastern dryness was Tropical Storm Mitch's passage across southern Florida on November 4-5, when heavy rainfall and gusty winds caused minor damage to vegetables.

**2 - SOUTH AMERICA**

Below-normal November rainfall caused unfavorably dry topsoils for soybean germination and corn development in extreme southern Brazil. Near-normal rainfall maintained adequate soil moisture elsewhere in southern Brazil. Despite early November rainfall, recent dryness is limiting topsoil moisture for summer crop planting and germination in central Argentina. Below-normal rainfall stressed reproductive winter wheat in southern Buenos Aires.

**3 - EUROPE**

Cold, wet weather hampered sugar beet harvesting in the northwest, while below-normal rainfall helped summer crop harvesting in France and Spain. Topsoil moisture was becoming limited for winter wheat planting in Spain. Unseasonably cold weather since mid-November caused winter grains in western Europe to enter dormancy earlier than usual. The cold weather kept winter grains dormant in the north and east.

*(More details are available in the Weekly Weather and Crop Bulletin. Subscription information may be obtained by calling (202) 720-7917.)*

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**USDA/OCE - World Agricultural Outlook Board**  
**Joint Agricultural Weather Facility**


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**4 - FSU-WESTERN**

The combination of fall drought and unseasonable cold in November in eastern Ukraine and southern Russia caused winter wheat to enter dormancy poorly established, making the crop more susceptible to winterkill conditions. Farther north, an unusually early snow cover in northern Russia and Belarus protected winter grains from periods of bitterly cold weather.

**5 - NORTHWESTERN AFRICA**

Following a late start to the autumn rainy season, moderate to heavy rain since mid-November in Algeria and Tunisia provided abundant moisture for winter grain planting. In Morocco, recent showers prompted widespread winter grain planting, delayed by previous dryness.

**6 - SOUTH AFRICA**

Conditions are mostly favorable for the germination and establishment of corn and other summer crops due to this season's widespread and frequent spring showers. The planting pace should be well ahead of last year's drought-hampered effort. In Western Cape, mid-November rain caused minor disruptions in the wheat harvest.

**7 - SOUTH ASIA**

In mid-November, tropical cyclones brought heavy rain and local high winds to coastal rice areas of eastern India. Conditions elsewhere have been generally favorable for maturing summer crops, although late-season showers in central India may have affected the quality of some unharvested cotton. Winter grain and oilseed planting progressed across northern and central growing areas while in southern India, rabi (autumn-planted) crops have generally favorable moisture levels for establishment.

**8 - EASTERN ASIA**

In the North China Plain, continued below-normal rainfall limited soil moisture for rainfed winter wheat. Adequate irrigation supplies exist for irrigated winter wheat. Seasonably cold weather prompted winter wheat to begin entering dormancy across the region. Below-normal November rainfall favored rice harvesting in south-central China, the Korean peninsula, and most of Japan.

**9 - SOUTHEAST ASIA**

During November, three tropical cyclones (Chip, Dawn, and Elvis) brought above-normal rainfall to southern Vietnam, slowing rice harvesting. Above-normal rainfall also slowed rice harvesting in northeastern Thailand. Near-normal rainfall maintained adequate moisture for main-season grains in Java, second-season grains in the Philippines, and oil palm across peninsular Malaysia.

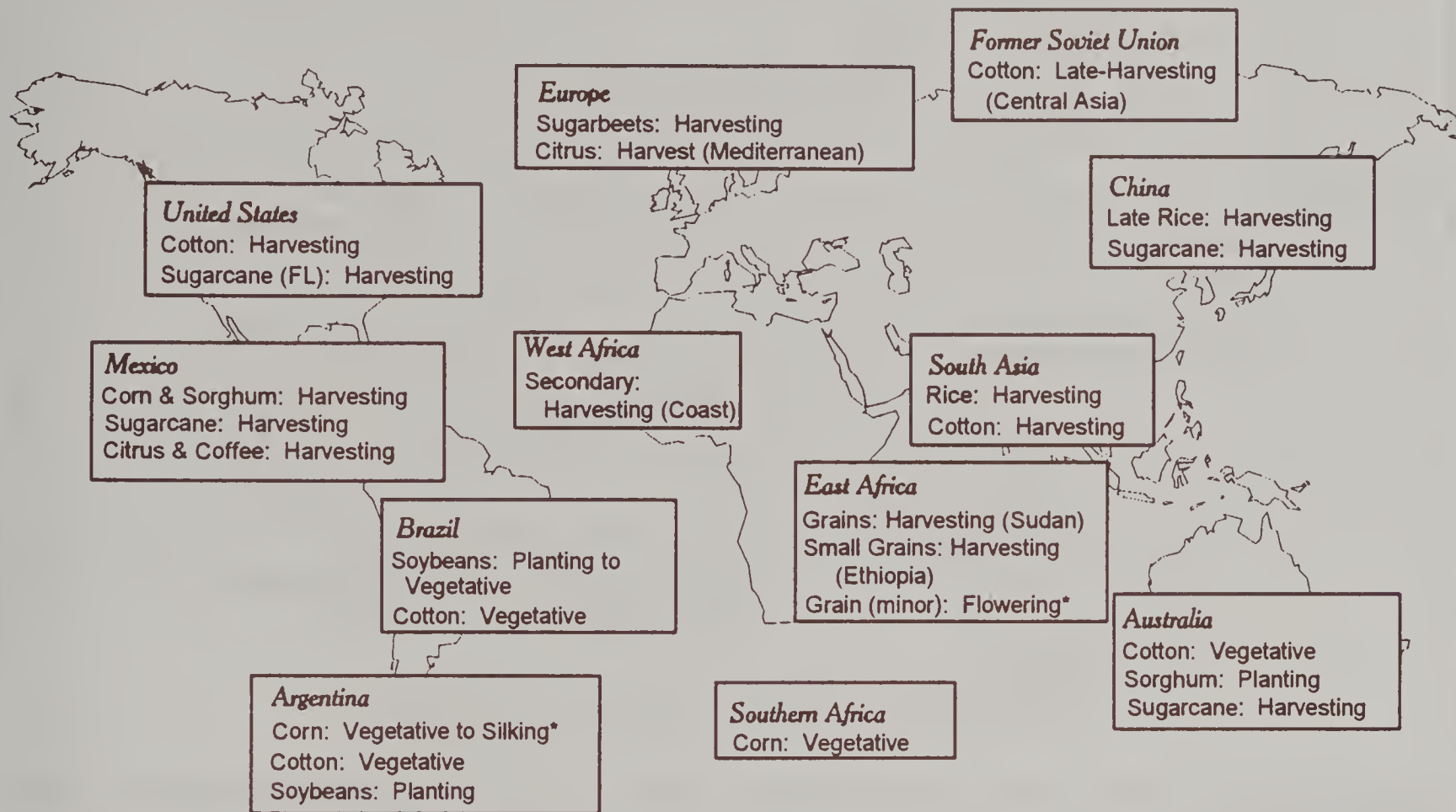
**10 - AUSTRALIA**

During November, periods of locally heavy rain in east-central Australia worsened winter wheat quality prospects and hampered early development of cotton and sorghum. Excessive moisture along the east coast reportedly resulted in reduced sugarcane production. Elsewhere, the current drying trend in the southeast favors winter grain dry down and harvesting, but recent showers in Western Australia may have disrupted fieldwork.

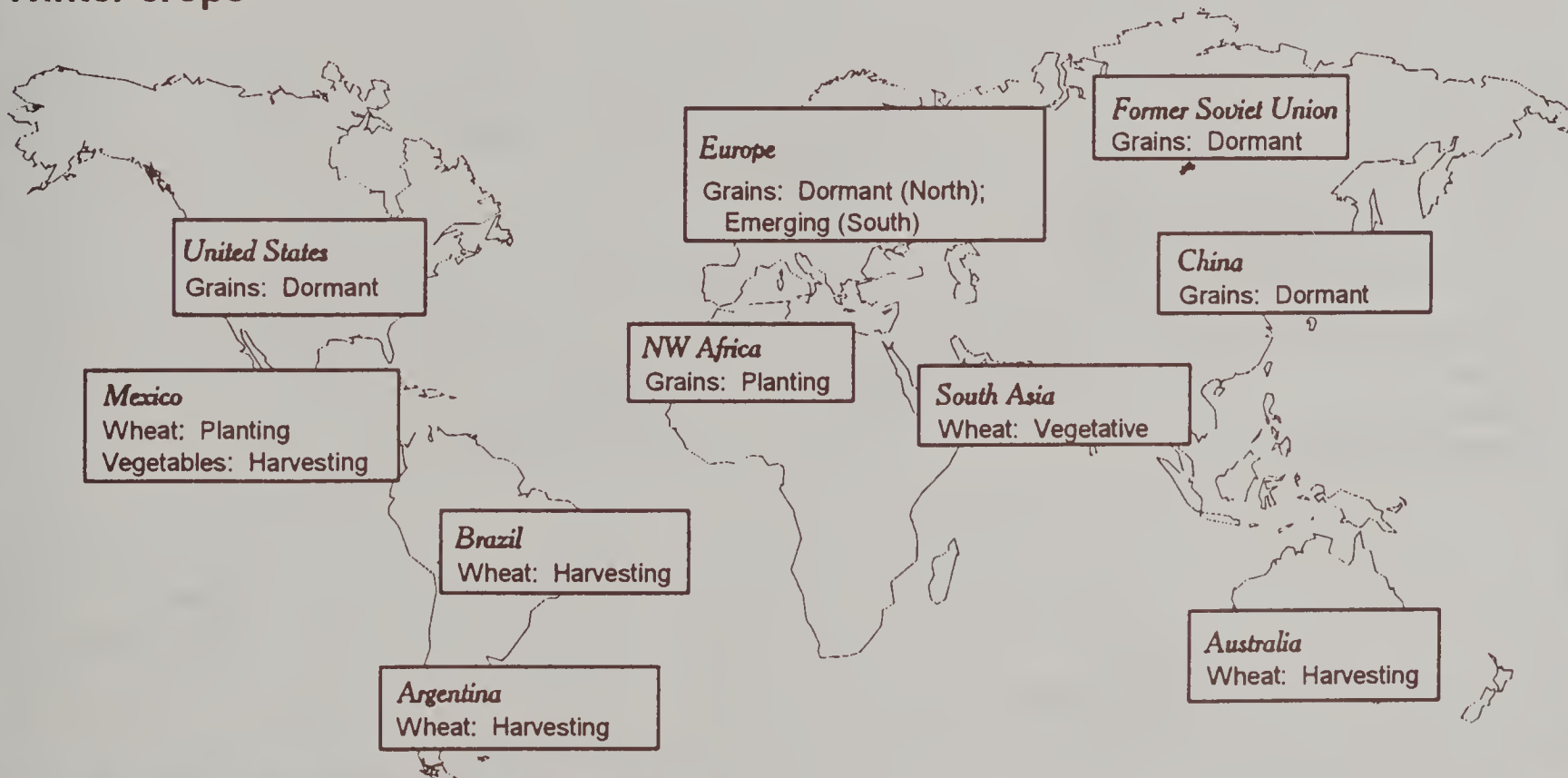
USDA/Joint Agricultural Weather Facility

# December normal crop calendar

## Summer crops



## Winter crops

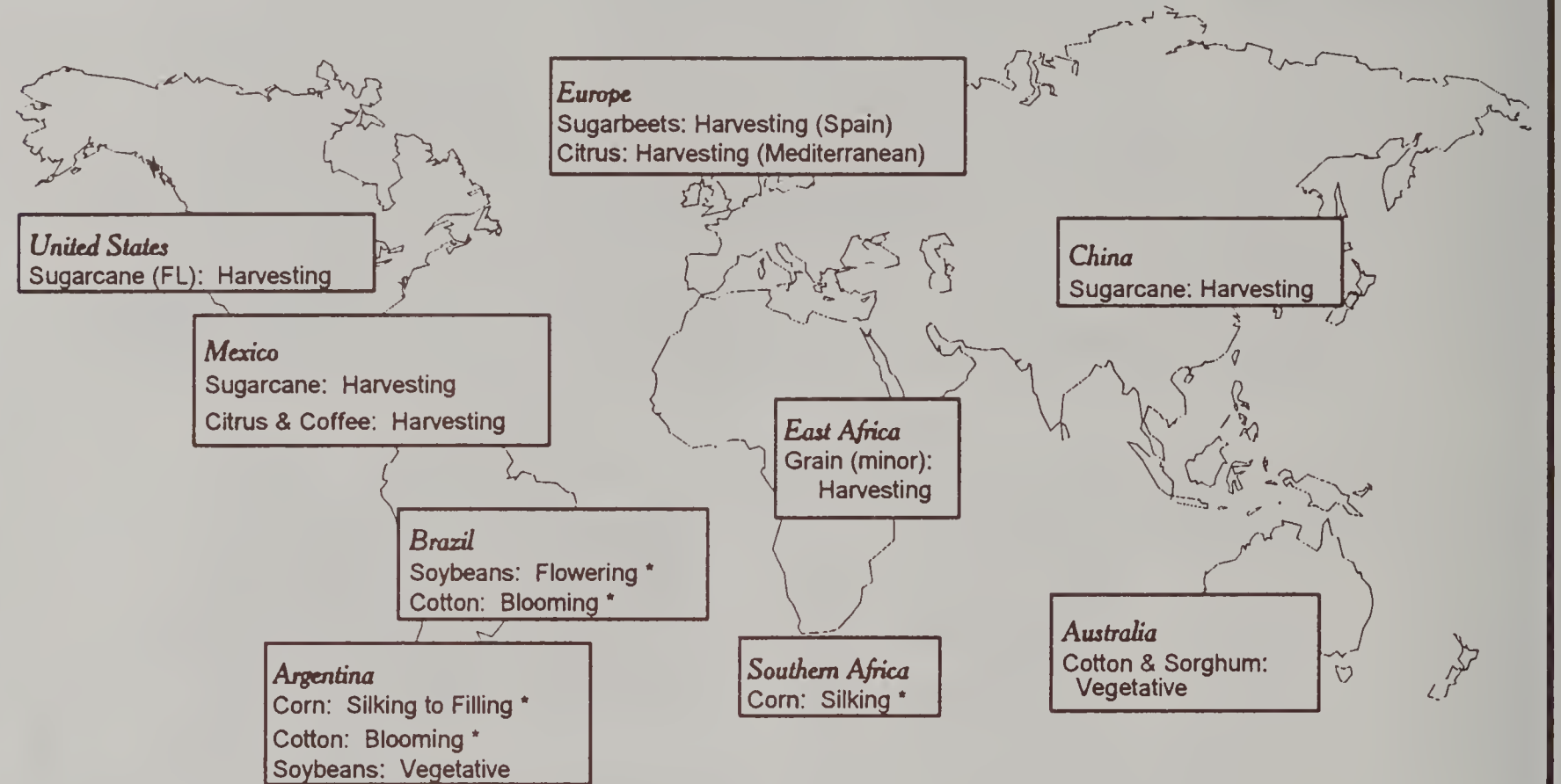


\* Moisture / Temperature Sensitive Stage of Development

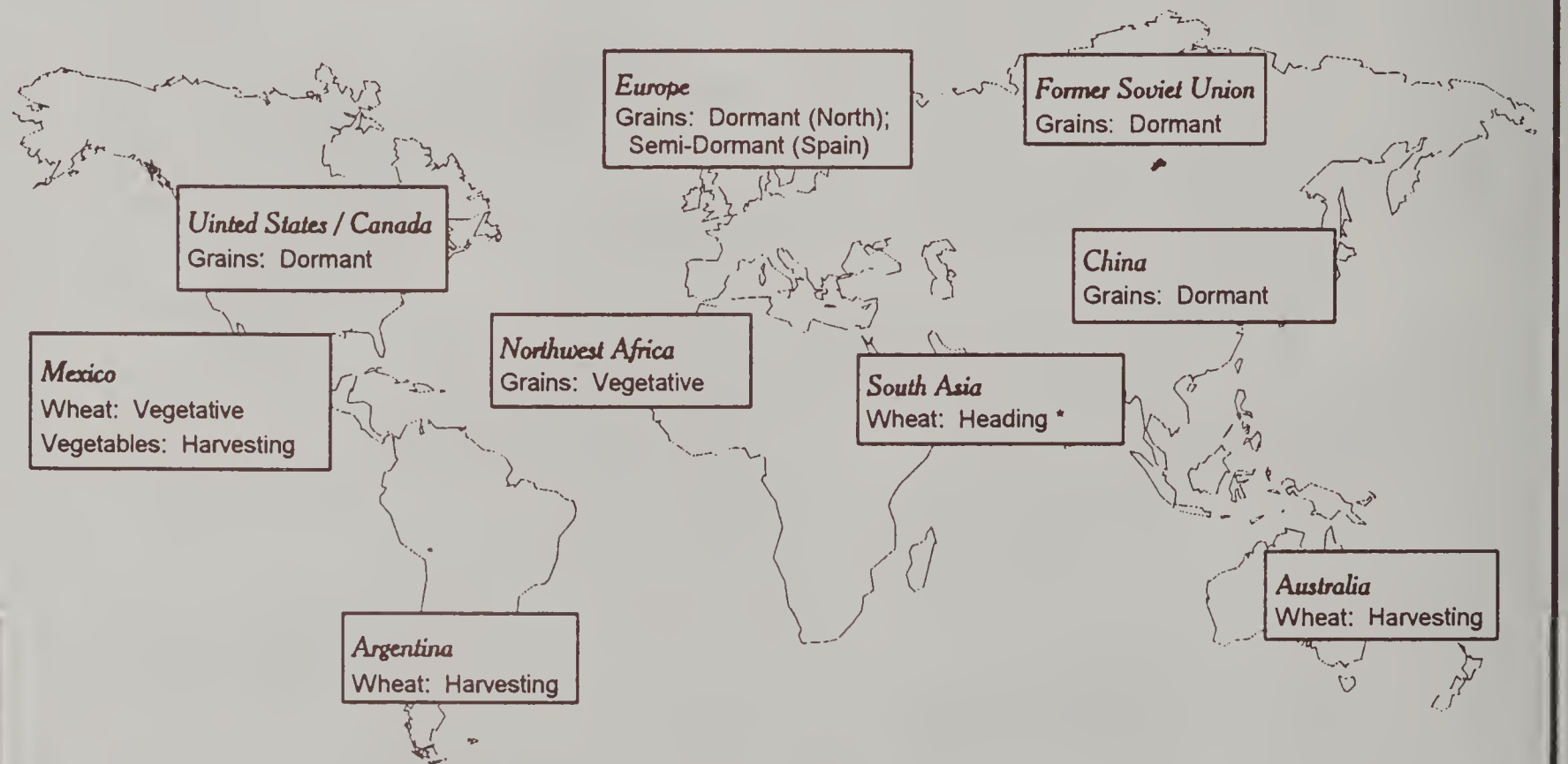


# January normal crop calendar

## Summer crops



## Winter crops



\* Moisture / Temperature Sensitive Stage of Development

JOINT AGRICULTURAL WEATHER FACILITY (NOAA/USDA)

## WEATHER BRIEFS

### ARGENTINA: CONTINUED DRY IN NORTH CENTRAL GROWING AREA

In October, below-normal rainfall stressed vegetative to reproductive winter wheat across central Argentina. Rain in late October and early November, increased soil moisture levels, helping to stabilize crop prospects. During the first week of November, moderate rain covered northern Buenos Aires, southern Santa Fe, and Cordoba boosting soil moisture for filling wheat and germinating corn and sunseed. However, the major winter wheat areas of southern Buenos Aires received little or no rain, further stressing reproductive wheat. During November 8 - 14, little or no rain fell in southern Santa Fe, stressing filling wheat and slowing summer crop planting. Light to moderate rain benefitted reproductive wheat in southern Buenos Aires and filling winter wheat in southern Cordoba. From November 15 - 28, dry weather returned to southern Buenos Aires, reducing soil moisture for reproductive to filling winter wheat. To the north, heavy showers slowed filling to maturing winter wheat and possibly reduced quality in southern Santa Fe. The moisture, however, erased lingering moisture deficits for summer crop planting. Dry weather, continuing into December 5 in central Argentina, has caused topsoils to become unfavorably dry for soybean and corn planting and germination, especially in northern Buenos Aires. Subsoil moisture supplies should be adequate in southern Cordoba and Santa Fe, but limited in northern Buenos Aires.

### BRAZIL: TOO DRY IN RIO GRANDE DO SUL

During October, rainfall continued to be above normal in southern Brazil, slowing harvesting and reducing wheat quality. During the first week of November, drier weather favored winter wheat harvesting and summer crop planting in Parana and Rio Grande do Sul. From November 8 - 14, moderate showers increased soil moisture for soybean and corn planting throughout most areas, except Rio Grande do Sul, where rainfall was light, limiting soil moisture. During November 15 - 21, light to moderate showers eased short-term dryness in Rio Grande do Sul, while elsewhere in southern Brazil drier weather favored summer crop planting. From November 22 - 28, somewhat dry conditions continued across the main crop region. While Brazilian weather data was sparse during this week, satellite data suggested that the main soybean growing areas received only light, scattered rainfall. From November 29 through December 5, mostly dry weather prevailed across Rio Grande do Sul, while scattered showers prevailed to the north. Soybean planting was slightly behind schedule by December 5 in Rio Grande do Sul due to persistent dryness.



## NORTHWEST AFRICA: RAINY SEASON GETS OFF TO SLOW START IN WEST

Winter grain planting for 1999/2000, has been delayed across Morocco and western Algeria due to a slow start of seasonal rain. The bulk of the winter grain crop is normally planted from mid-November through mid-December; however, planting often extends into early January, especially in Algeria. Rainfall has been more seasonal across eastern Algeria and northern Tunisia. In mid-November, light to moderate rainfall across the eastern winter grain areas helped initiate planting. From November 22 - 28, moderate rainfall in Tunisia and eastern Algeria provided abundant moisture for winter grain emergence. Showers across western Algeria growing areas, moistened topsoils, while Morocco remained unseasonably dry. During November 29 through December 5, the first significant precipitation since the beginning of the growing season fell over winter grain areas of Morocco. Rainfall amounts ranging from 10 to 34 millimeters prompted widespread planting. Additional rain is needed in Morocco to ensure uniform crop emergence and establishment. In Algeria's grain growing areas, rainfall again moistened topsoils. In Tunisia, little or no rain occurred, providing favorable weather for planting.

## PRODUCTION BRIEFS

### AUSTRALIA: WHEAT OUTPUT REDUCED DUE TO UNFAVORABLE WEATHER

Australia's 1998/99 wheat output is forecast at 21.0 million tons, down 1.0 million or 5 percent from last month, but up 8 percent from 1997/98. Wheat area is unchanged this month at 11.5 million hectares. Prevailing cool and wet weather has delayed harvesting activities in the Northern States. Both quality and quantity have suffered due to the unfavorable weather, according to a November field report completed by USDA personnel. The following is a brief description of their findings.

Wheat production in Queensland will be nearly double the level achieved in 1997/98; however, excessive rainfall during the growing season has lowered crop quality. Weather in New South Wales (NSW) has been variable with some areas experiencing better-than-normal conditions, while others have been badly affected by frost, flooding, and disease. However, the NSW crop is likely to be larger than the previous season and above the five-year average. In Victoria, the crops have been negatively affected by very dry weather at critical times in the Mallee, frost damage in the Wimmera, and late rain in some areas. Victoria's crop size is expected to be below both last season and the five-year average. South Australia may have a record crop due to a larger planted area and above-average yield, despite some problems with frost, late rain, and disease. Western Australia appears set for a record crop despite frost events, rain, and cool conditions that delayed harvest. Early indications of frost damage in Western Australia appear to have been exaggerated and have been offset by excellent yields in the northern and southern wheat belt.

While the wheat harvest will be one of the largest on record, adverse weather conditions are expected to result in a significant quantity of wheat being reduced to feed or general purpose grade. There are reports of extensive grain discoloration. The result of this downgrading has been that a lot of grain has been stored on farm due to the expectation that this grain may attract a higher price in the future. The Australian Wheat Board is reportedly moving to maximize delivery of this grain by offering higher prices for grain (especially higher protein) that has a higher than normal quantity of defects, and then blending the grain to maximize return.

### CANADA: GRAIN OUTPUT REVISED HIGHER BY STATISTICS CANADA

Wheat production for 1998/99 is estimated at 24.4 million tons, up 1.1 million from last month and up slightly from last season, according to a recent Statistics Canada report. Harvested area increased 0.2 million hectares to 10.8 million. Yield increased to an estimated 2.27 tons per hectare, third highest on record. Although dry weather during July and August stressed the crop, late season rain helped wheat recover. Durum wheat is estimated at a record 6.1 million tons due to record area. Corn production is also pegged at a record, 8.9 million tons, up 1.3 million from last month and up 24 percent from last season. Corn area, estimated at 1.1 million hectares, is slightly off the 1984 record. Yield is estimated at a record 7.96 tons per hectare, up 8 percent from the previous 1994/95 record. Favorable weather helped to boost corn yield. Barley, oats, and rye changed little from the previous month, estimated at 12.7 million, 4.0 million, and 0.4 million tons, respectively.



## RUSSIA: WHEAT AND CORN OUTPUT LOWERED BASED ON HARVEST PROGRESS

Wheat production for 1998/99 is estimated at 27.0 million tons, down 1.0 million from last month and down 17.2 million from last year. Harvest reports and official forecasts indicate that total net-weight grain production for 1998/99 is unlikely to exceed 50.0 million tons, compared to over 87.0 million for 1997/98. Estimated total-grain yield is down approximately 40 percent from last year because of severe drought that had a significant negative impact on both winter and spring wheat plantings in the Volga Valley and adjacent regions. Corn production is estimated at 1.0 million tons, down 0.2 million from last month and down 1.7 million from last year. Estimated yield is down due to persistent drought in parts of the North Caucasus region.

## UKRAINE: COARSE GRAIN PRODUCTION REDUCED

Estimated 1998/99 coarse grain output for Ukraine is down 7 percent from last month to 10.3 million tons, based on a recent report from the U.S. agricultural counselor in Kiev. The spring-planted coarse grains were severely affected by hot, dry weather that prevailed over southern and eastern Ukraine as the crops were advancing through the reproductive stage of development. Barley production is estimated at 6.2 million tons, down 0.1 million from last month and down 1.2 million from last year. Rye production is estimated at 1.2 million tons, down 0.2 million from last month and also down 0.2 million from last year. Oat production is estimated at 0.9 million tons, down 0.2 million from last month and down 0.1 million from last year. Corn production is estimated at 1.6 million tons, down from 0.4 million from last month and down 3.7 million from last year.

## SOUTH AFRICA: CORN AREA HIGHER

South Africa's corn production for 1998/99 is estimated at 9.0 million tons, an increase of 0.5 million from last month and up 1.5 million from last year. Corn area is estimated at 3.2 million hectares, up 8 percent from a year ago. Beneficial rainfall at the beginning of the planting season encouraged farmers to increase corn area by an estimated 200,000 hectares. According to a recent Government survey of planting intentions, area planted to white corn, which is used for human consumption, is expected to increase by 136,000 hectares in 1998/99. Yellow corn suffered a large area decline in 1997/98, but farmers are planning to increase area by 64,000 hectares this year in response to higher prices. Although planting is off to a solid start, sowing can continue into mid-January if necessary.

## ARGENTINA: GRAIN PRODUCTION REDUCED DUE TO DRYNESS

The 1998/99 wheat crop is forecasted at 10.0 million tons, down 0.5 million or 5 percent from last month, and down 4.8 million or 32 percent from last year. Harvested area is reduced 0.1 million hectares to 4.6 million this month due to continued dryness in southern Buenos Aires. The wheat crop in southern Buenos Aires province passed the flowering stage in mid-November and is now in grain fill. A combination of reduced input use due to depressed prices at planting and inclement weather conditions in southern Buenos Aires are contributing factors in reducing the wheat crop.

Argentine corn production for 1998/99 is estimated at 13.5 million tons, down 1.5 million tons or 10 percent from last month, and down 5.9 million tons or 30 percent from last year's record crop due to the impact of lower prices, delayed plantings, and dry weather. Harvested area is currently

estimated at 2.8 million hectares, down 0.2 million hectares or 7 percent from last month. About 73 percent of the corn crop has already been planted as of the end of November. Area is being shifted from corn to soybeans and sunflowerseed this year because of relatively better returns for those crops.

Rainfall during November and early December has improved in the previously dry regions of Cordoba and Santa Fe. However, the situation in southern Buenos Aires remains critical due to continued dryness, and additional rainfall is needed for crop development. Generally, temperatures have remained normal to below normal over the region.

#### BRAZIL: CORN PRODUCTION ESTIMATE LOWERED

Brazil's 1998/99 corn production is estimated at 33.5 million tons, down 1.0 million or 3 percent from last month, but 8 percent above last year. Harvested area is estimated at 12.7 million hectares, down 0.3 million from last month, but 9 percent above last year. Dry weather during November in southern Brazil has caused producers to reduce plantings; however, northern Parana and southern Mato Grosso received widespread showers (0.5- 2.0 inches) benefitting the corn crop now being planted. Year-to-year, farmers are shifting area from soybeans to corn in response to relatively lower soybean prices and reduced corn stocks.

#### CHINA: LATE RICE YIELDS BOOSTED BY GOOD WEATHER

China's rice production for 1998/99 is estimated at 133.0 million tons (milled basis), up 1.0 million or nearly 1 percent from last month, but down 5 percent from last year's record crop. The revision is based on higher estimated yield for the late rice crop, which benefitted from favorably warm and dry weather during grain fill and harvest. Estimated total rice area is unchanged at 31.3 million hectares, but down 0.5 million from last year. The Ministry of Agriculture reported that early-rice area dropped 4 to 5 percent in 1998/99 due to low prices and weak demand. In addition, severe flooding in central China caused some area losses and delayed late-rice transplanting. In contrast, stable area and high yields are expected for China's single-crop rice, which was largely unaffected by severe weather in 1998/99.

#### SOUTH KOREA: RICE OUTPUT RAISED

The 1998/99 milled rice production for South Korea is raised 0.3 million tons this month to an estimated 5.0 million as producers overcame severe weather constraints by greatly increasing the use of fertilizer, pesticide and fungicide. Yield is estimated at 6.38 tons per hectare, up 6 percent from last month, but down 9 percent from last season and near the five-year average. According to the U.S. agriculture attache in Seoul, mountain production areas experienced lower-than-normal temperatures during June and July that retarded yields. Southwest provinces suffered continuously overcast conditions during July and August that hampered normal development leaving plants susceptible to wind, insect, and disease damage. Northwest provinces flooded under torrential rains during late July/early August that washed out many paddy fields. Also, southeast provinces flooded late in the season due to typhoon Yanni. Sprout damage due to lodging is estimated at eight percent of production on that acreage. The crop's quality is suspect with breakage expected to be substantially higher than normal.



### BANGLADESH: RICE OUTPUT LOWERED

The 1998/99 milled rice production for Bangladesh is estimated at 17.8 million tons, down 0.3 million from last month and down 5 percent from last season. Output is reduced again this month due to a cyclonic storm in the southern coastal region which damaged the ready-to-harvest early aman crop. (The aman crop represents over 40 percent of the total-rice.) Also, there are reports of heavier than normal insect damage in major rice surplus areas of the north.

### INDIA: RICE PRODUCTION DOWN DUE TO EXCESS RAIN

For India, the 1998/99 rice output is estimated at 81.0 million tons (milled basis) down 0.5 million tons from last month and 1 percent below the revised estimate of last year's crop. Area is revised higher to 42.7 million hectares from 42.3 million. Heavy, late-season and post-monsoon rains coinciding with the harvesting and marketing of rice in Punjab and Haryana have reportedly caused significant losses and aggravated quality problems, according to the U.S. agriculture attache in New Delhi. Andhra Pradesh, the major rice growing state in south India also experienced heavy rains and flooding in mid-October, tempering rice production prospects.

In addition, based on data received from various state governments, the Ministry of Agriculture has revised its 1997/98 rice production estimate downward to 82.1 million tons, (71.9 million during the kharif (fall harvested) season and 10.2 during the rabi (spring harvested season) from its earlier estimate of 83.5 million. Area increased from 42.2 million hectares to 43.1 million.

### EGYPT: RICE OUTPUT LOWERED

Milled rice production is estimated at 3.1 million tons, down 0.4 million this month and down 15 percent from 1997/98. Total rice area is estimated at 0.5 million hectares, about 20 percent lower than 1997/98, but still exceeding the government target by about 60 percent. The decline in area planted from last year's level was due to the fact that some farmers were concerned that the government might enforce fines for violating the target area this year. Yield increased this year to a record 8.93 tons per hectare. This was mostly due to the increase in area cultivated with new high yielding varieties (short grain). The short grain "Japonica" variety comprises approximately 85 percent of the rice crop and is preferred by Egyptian consumers to the higher-yielding, long grain "Phillipini" variety.

Rice is a major summer crop in Egypt, occupying 10 percent of Egypt's total cropped area. All of the rice crop is irrigated. Rice requires a special irrigation regime and its cultivation is largely restricted to the northern part of the Delta. It is often grown as a reclamation crop where the soil is fairly saline and in various stages of productively. Also, limited amounts of rice are grown in the middle Delta and in Upper Egypt. With irrigation water provided free of charge and a much higher profitability of rice cultivation compared to other traditional summer crops, farmers normally exceed the area targeted by the government for rice cultivation despite the prospect of fines of £E 1000/feddan for those who violate their targeted areas. The collection of fines imposed on farmers who violate their target rice areas is rarely enforced by the government, and many farmers still owe the government a lot of money. Due to a high flood level of the Nile in 1998, the government has decided to forego the fine imposed on farmers who violated their target rice area this year. Fines from previous seasons remain payable.

## VIETNAM: RICE OUTPUT INCREASED

Vietnam is estimated to produce 18.5 million tons of rice during 1998/99, up 0.5 million from last month, but down 2 percent from last season's revised record level. During 1997/98, farmers faced the enviable combination of high paddy prices and generally favorable weather, according to the U.S. agriculture attache in Hanoi. Despite localized severe dislocations in Central Vietnam, the El Niño effect was largely benign on the primary production centers of the Mekong River Delta (MRD) and Red River Delta (RRD). Vietnam's production for 1997/98 enjoyed a huge boost during the key summer-autumn crop in the MRD, as farmers responded to high prices and expanded planted area to a record 2.1 million hectares. Also, yield rose as farmers, fearing drought later in the season, selected short-cycle, high-yielding varieties. High paddy prices encouraged investment in inputs and better management that in turn improved yields.

As of late November, almost 50 percent of the 1998/98 first crop (lua mua, or 10<sup>th</sup> month crop) has been harvested. The lua mua crop stretches from north to south, but is concentrated in the RRD (23 percent) and the MRD (24 percent). Early reports indicate that the yield has been very good in the RRD, with prices in the RRD softening slightly to about 2,000-2,150 VND/kg (\$US1.0 = 13,950VND) due to harvest pressure.

Ministry of Agriculture & Rural Development (MARD) experts anticipate drought will affect the crucial winter-spring crop (harvested Feb-Mar 1999) in the MRD. Accordingly, MARD has advised farmers in low-lying areas to plant by December 15, while farmers in higher, non flood-prone areas should plant by November 15. An estimated 175,000 hectares of the MRD have already been planted to the winter-spring crop. This crop is the primary export crop for Vietnam because of its inherently superior quality characteristics. MARD notes with some caution that pool levels in the Mekong River are currently at the lowest levels in 40 years. In normal years, the rainy season in the MRD is accompanied by flooding from sources up river.

## ARGENTINA: SOYBEAN PRODUCTION ESTIMATED HIGHER

Argentina's 1998/99 soybean production is estimated at 17.0 million tons, up 0.5 million or 3 percent from last month, but down by about 10 percent from last year's record crop. The harvested area is currently estimated at 7.3 million hectares, up 0.2 million hectares or 3 percent from last month. The increase in area is due to dryness at planting which caused a shift in acreage from corn to soybeans and sunflowerseed, as well as expected higher returns. About 52 percent of the crop has been planted through the end of November and planting will continue through January.

## RUSSIA: SUNSEED OUTPUT DOWN DUE TO DROUGHT, INPUT PROBLEMS

Russia's sunflowerseed production for 1998/99 is estimated at 2.8 million tons, down 0.5 million from last month and down marginally from last year. Despite a 15-percent increase in sown area, to a record-matching 4.1 million hectares, output did not surpass last year's level. Persistent drought in key sunflower regions, combined with a continued reduction in the application of fertilizers and plant-protection chemicals, drove yield to the lowest level in over 35 years.



## CANADA: RAPESEED AND SOYBEAN ESTIMATES REVISED HIGHER

Canadian producers grew a record quantity of rapeseed and near record quantity of soybeans this season, according to Statistics Canada's November Estimate of Production of Principle Field Crops released on December 7. Drought during July and August had many analysts and farmers expecting lower yields than what are now being estimated, but beneficial rainfall just before harvest resulted in a year-to-year increase in rapeseed yield and a record soybean yield.

This year's record rapeseed output of 7.6 million tons resulted from the second highest harvested area combined with a yield that was well above average. Favorable prices relative to small grains and strong demand partly due to increased domestic processing capacity contributed to the high harvested area figure. Statistics Canada estimated the soybean harvest at 2.7 million tons the second highest on record and down just 1,000 tons from last year. Although soybean seeded area was down roughly 80,000 hectares, an increase of about 0.2 tons per hectare in yield was the major reason for the high production. Additionally, sunflowerseed production is estimated by Statistics Canada at 112,000 tons, the highest level in 4 years.

## UNITED STATES: CROP CONDITION AND PROGRESS

A large mass of cold air arrived from Canada early in November and brought the first major snowstorm days later. Harvest activities were halted and wheat fields were blanketed with at least a few inches of snow in the northern Great Plains. A few days later, another storm delivered a mixture of snow and freezing rain in the northern Plains. As the system moved eastward, it produced heavy rains and damaging winds in parts of the Corn Belt and Mississippi Valley. During the second half of the month, temperatures averaged well above normal across most of the Nation, aiding development of winter wheat in the central and southern Great Plains, Mississippi Delta, southern and eastern Corn Belt, and Southeast. Dry conditions also prevailed over much of the Nation during the last half of the month, aiding harvest efforts and fall tillage operations. Harvest activities slowly resumed late in the month in the northern Plains and upper Mississippi Valley following earlier storms.

Harvest of the Nation's corn and soybean crops was nearing completion as November began. Progress for both exceeded the average due to early ripening and good harvest weather. Nationally, the corn harvest was more than 1 week ahead of normal, with some areas of the northern Corn Belt more than 2 weeks ahead of average. The soybean harvest pace slowed as the end of the season approached, and was less than 1 week ahead of the 5-year average as the month began. Favorable weather during the month allowed the corn and soybean harvest pace to continue ahead of normal despite isolated delays. The corn harvest briefly fell behind normal in parts of the central Great Plains near mid-month, but warm, dry weather returned and the harvest pace quickly moved back ahead of the 5-year average.

Most of the Nation's winter wheat was seeded as November began, but progress was slightly behind normal. Planting was virtually complete in the northern Plains and Rocky Mountains, while growers in the Southeast and Southwest were just starting to gain momentum. By mid-month, most planting in the central and southern Great Plains and eastern Corn Belt was complete. Rain delayed planting efforts in parts of the southern Corn Belt. Dry soils forced growers in the Southeast to delay planting

until early-month showers partially relieved topsoil dryness. Emergence also lagged behind normal, partly because of late planting and partly due to dry soils, especially in the Great Plains and Southeast. Emergence improved in the Great Plains and Mississippi Delta after early-month soaking rains. Warm weather during the last half of the month stimulated growth in the central and southern Great Plains, Corn Belt, and lower Mississippi Valley.

The cotton harvest began November more than 1 week ahead of normal and remained ahead of the average throughout the month. Mostly dry conditions allowed growers in the lower Mississippi Valley to complete their harvest by mid-month. Dry weather also aided harvest in the Southeast, but harvest progress lagged in California due to the late-maturing crop.

Sorghum harvest progressed slightly ahead of normal until mid-November, when rains slowed progress in the Great Plains and southern Corn Belt. Dry conditions aided progress during the second half of the month, except in the northern Plains where progress was halted by early-month winter storms. Harvest resumed late in the month as muddy fields slowly dried. The peanut harvest also progressed ahead of normal, as dry weather prevailed in most peanut producing regions. Florida growers finished harvesting far ahead of the 5-year average.

#### FORMER SOVIET UNION: WEATHER AND CROP DEVELOPMENTS

In early November, unseasonably cold, snowy weather spread rapidly south over winter grain areas in Russia, Ukraine, Belarus, and the Baltics, ending a period of unseasonable warmth that had persisted over these areas for several weeks. The wintry weather halted further growth of poorly established winter grains in eastern Ukraine and southern Russia and induced crops into dormancy. As a result of fall drought and the sharp drop in temperatures in early November, winter wheat in primary growing areas of eastern Ukraine and southern Russia (southern Black Soils region, lower Volga Valley, and the North Caucasus region) entered dormancy poorly established, making the crop more susceptible to potential winterkill conditions. However, above-normal precipitation in November eased chronic dryness in eastern Ukraine and southern Russia, improving soil moisture levels. In the Baltics, Belarus, and northern Russia (Central Region, Volga Vyatsk, northern Black Soils region, and the upper Volga Valley) the cold weather was accompanied by moderate to heavy snow. The snow protected winter grains from bitterly cold weather (extreme minimum temperatures ranging from -15 to -29 degrees C) that occurred during the month. However, the snow fell on mostly unfrozen soils, increasing the risk of fungal development and plant rotting if the snow were to persist for a sufficient amount of time.

Since early December, unseasonably cold weather continued over Russia, Ukraine, Belarus, and the Baltics, maintaining a protective snow cover as far south as southern Ukraine and the northern tip of the North Caucasus region in Russia. Although winter wheat areas in the extreme southern Ukraine and the southern half of the North Caucasus remained snow-free, temperatures did not fall low enough to threaten dormant crops.

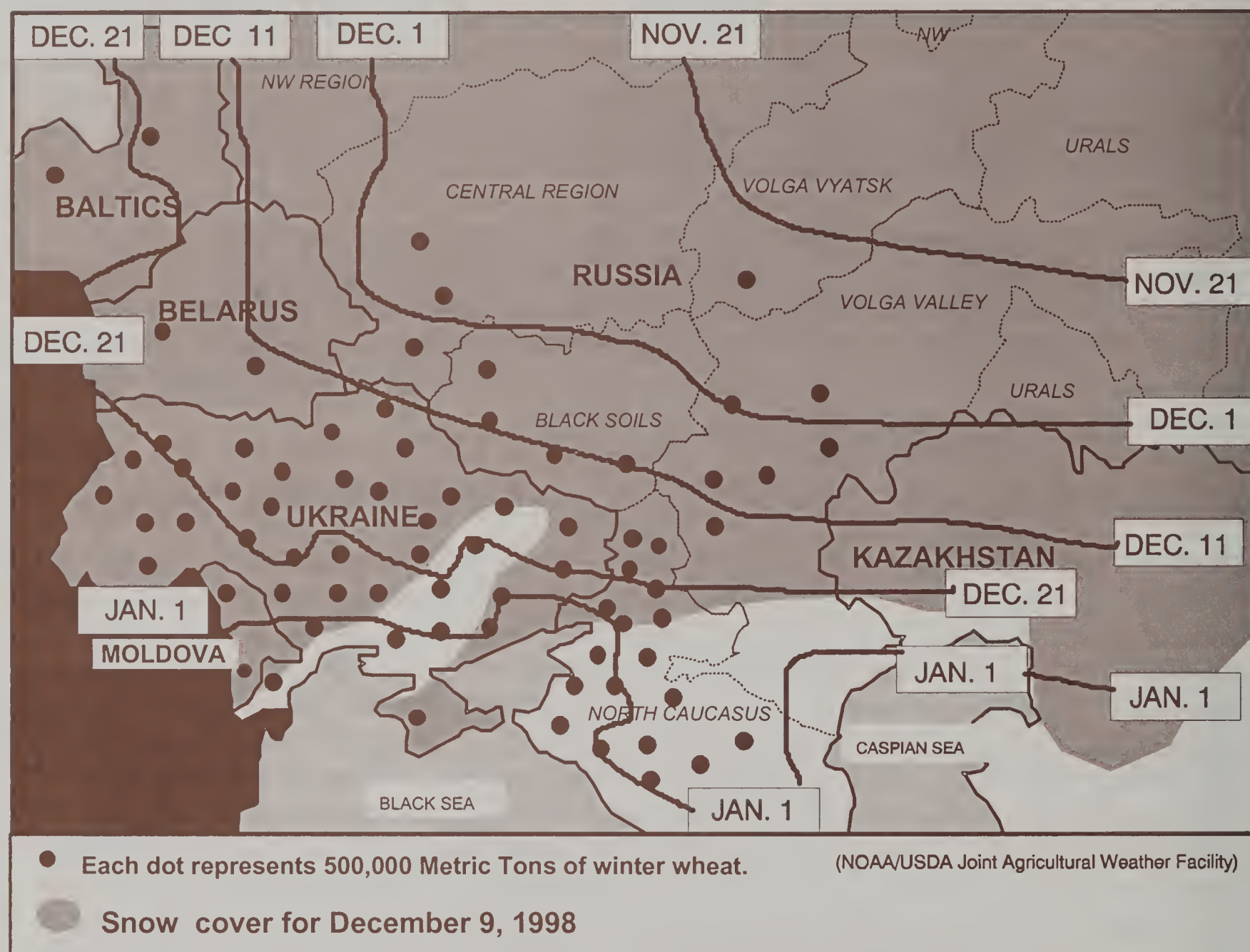
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# FORMER SOVIET UNION (WESTERN)

NORMAL DATES OF APPEARANCE OF SUSTAINED SNOW COVER



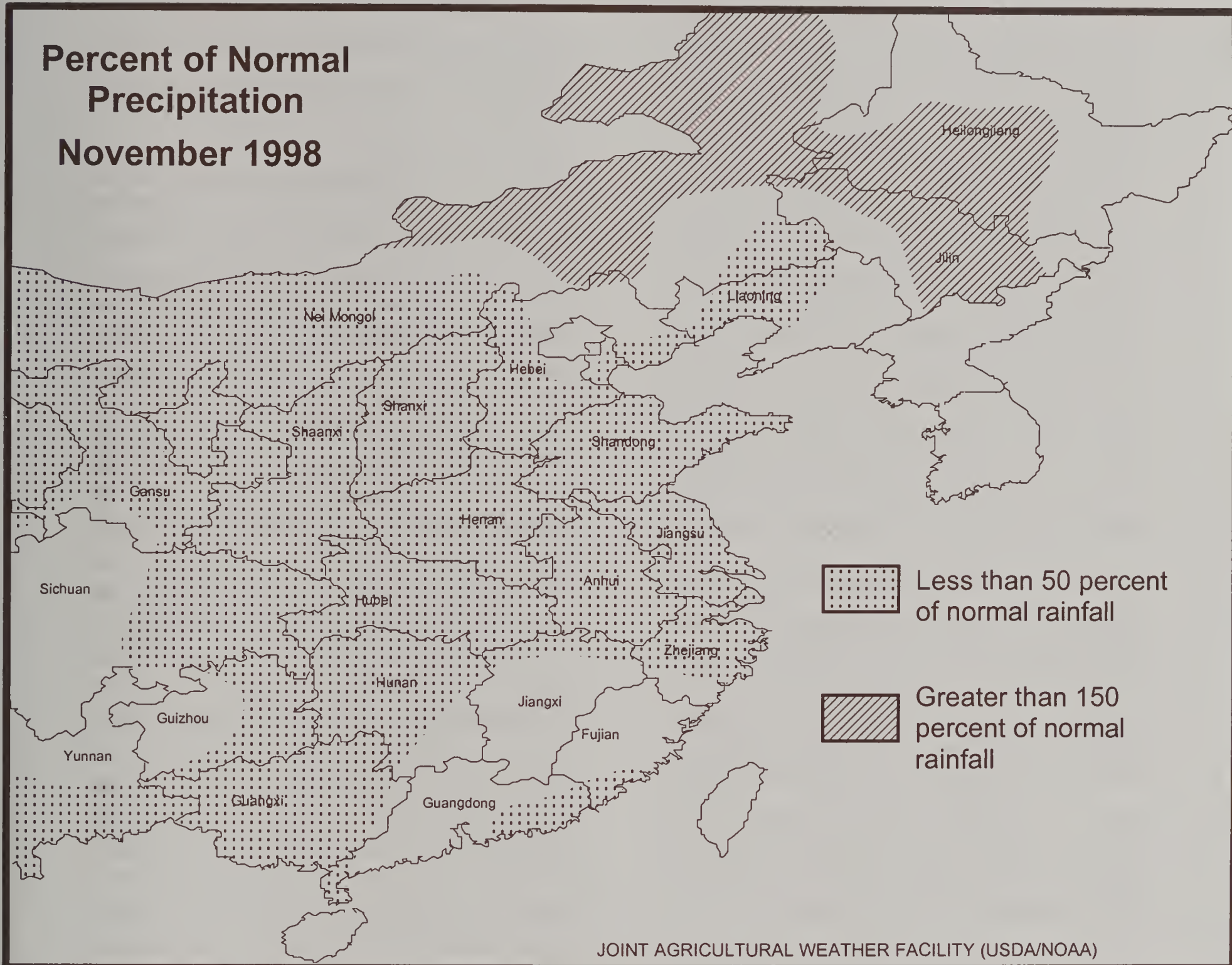
## WEATHER AND CROP HIGHLIGHTS

December 11, 1998

- o Unusual cold in November prompted dormancy in winter grains in southern areas.
- o The combination of fall drought and unusual cold in November in primary winter wheat producing areas of eastern Ukraine and southern Russia caused the crop to enter dormancy poorly established, making it more susceptible to potential winterkill.
- o Snow cover has persisted over winter grain areas as far south as southern Ukraine and the northern tip of the North Caucasus region in Russia since the middle of November, providing adequate protection from periods of bitterly cold weather.

# CHINA

## Percent of Normal Precipitation November 1998



## WEATHER AND CROP HIGHLIGHTS

DECEMBER 11, 1998

- In North China Plain, continued below-normal rainfall limited soil moisture for rainfed winter wheat. Adequate irrigation supplies existed for irrigated winter wheat. Seasonably cold weather prompted winter wheat to begin entering dormancy across the region.
- Below-normal November rainfall favored rice harvesting in south-central China.



## FEATURE COMMODITY ARTICLES

### MAJOR WORLD COTTON PRODUCERS

World cotton production for 1998/99 is forecast at 84.2 million 480-pound bales, down 8 percent from last year. World area is forecast to decrease 3 percent to 32.7 million hectares, while yield is down 6 percent from a year ago to 550 kilograms per hectare. The world's largest cotton producers, the United States and China, are projected to account for 38 percent of global production, down from 44 percent last year. The United States' production accounts for most of the total drop, falling from 21 percent of output last year to only 16 percent for 1998/99. The top seven producers of 1998/99 are expected to contribute 76 percent of the world cotton output compared with 79 percent in 1997/98.

Of the seven major producers, only India, Pakistan, and Australia are forecast to exceed last year's output. Output in the other major producers were down because of insect damage, disease, untimely cool weather, drought, and/or floods. This report highlights the top seven cotton producing nations which include the United States, China, India, Pakistan, Uzbekistan, Turkey, and Australia. These countries are estimated to produce 64.4 million bales of cotton this season.

United States: The United States is currently the world's second largest cotton producer. Output for 1998/99 is estimated at 13.5 million bales, down 5.3 million from last year. Harvested area and yield have declined dramatically from last year due to a combination of hot, dry weather extending from Texas to the Southeast and cool, wet conditions in California. Year-to-year, area dropped 1.2 million hectares from 1997/98 while yield is projected at only 697 kilograms per hectare compare to 762 kilograms in 1997/98. The 1998/99 yield is the lowest

since 1995/96 when Texas suffered yield losses due to insect damage and cool, wet conditions.

China: The world's largest cotton producer is estimated to produce more than one-fifth of the global output this year, despite damage from excessive rain and floods in southern China. Production is estimated at 18.8 million bales, down 2.3 million or 11 percent from last year. The projected yield of 910 kilograms per hectare is lower than last year's record yield of 1,021 kilograms, but higher than the 5-year average of 860 kilograms per hectare. Warm spring temperatures and abundant rainfall created favorable conditions for planting and germination in the North China Plain. Following a cool, wet spring conditions were favorable to crop development in Xinjiang.

India: The 1998/99 cotton crop is forecast at 13.0 million bales, 4 percent higher than last year's crop of 12.3 million. Harvested area is forecast at a record 9.2 million hectares. The increase of 0.3 million hectares over 1997/98 occurred largely in the central states of Andhra Pradesh, Gujarat, and Maharashtra. Responding to high 1997/98 cotton prices and depressed prices for tobacco and chillies, farmers shifted the additional area into cotton. Production increases in the central and southern states more than offset losses in the northern states of Punjab and Haryana, where September-October rains and subsequent insect infestation lowered estimated production. The central and southern states received intermittent Fall rains which supported additional boll formation, allowing late-season pickings in a number of rainfed areas. However, a small proportion of the early crop in these states was damaged by the unseasonable moisture.

Uzbekistan: Production in 1998/99 is estimated at 4.6 million bales, down 0.7 million or 13 percent from last year. Lint yield is forecast at 668 kilograms per hectare, down 14 percent from last year. Preliminary official figures indicate that farmers harvested slightly over 3.2 million tons of raw cotton in 1998/99 or 80 percent of the government's target. This is the lowest harvest since 1966/67 when 3.4 million tons were produced. Cool, wet weather, which delayed crop development, and pests were the main problems this season. In addition, lack of quality seeds and varieties played an important role in the production downturn.

Pakistan: For 1998/99, the cotton crop is forecast at 7.5 million bales, up 7 percent from last year's insect-reduced crop. Area is forecast at 2.9 million hectares, unchanged from 1997/98. Yield is forecast at 563 kilograms per hectare, above the five-year-average of 522 kilograms and substantially higher than 515 kilograms per hectare for 1997/98. On the whole, cotton is three-to-four weeks late due to poor germination caused by poor quality planting seeds and delayed availability of irrigation water in the lower Sindh at planting. As a result, the crop continues to develop in most areas. Above-normal shedding due to unusually high temperatures from June through August reduced the number of mature bolls per plant. However, better conditions later in the season appear to have compensated for these losses. Pests have not been a serious problem and pest management is reportedly good. Rains in mid-September in the Sindh negatively impacted less than 5 percent of the crop as most farmers had picked the opened bolls before these unusual rains. Farmers also drained their fields to minimize rain losses. Rains were less intense and, therefore, beneficial in the Punjab by lowering temperatures and enhancing late-season development.

Turkey: Cotton production in for 1998/99 is forecast at 3.7 million bales, equaling last year's level. At the outset of the season, unusual cool and wet weather had a significant negative impact on the development of the young cotton plants. Sources had estimated that as much as 30 percent of the Aegean crop was replanted and prospects for recovery did not appear favorable. Cool weather and flooding in other cotton-growing areas, particularly the southeast, also appeared to have a negative impact on production, though problems in other cotton areas have not been as severe as in the Aegean region. As the season progressed, the weather turned hot and dry allowing cotton to overcome the slowed development due to the earlier unfavorable weather. Recently, cotton fields were inundated with floods during the second (hand) picking, resulting in a further negative effect on yields. Reports indicate that about 140,000 bales of cotton may have been destroyed. However, increases in production in regions of Eastern Turkey are expected to keep overall production near 3.7 million bales.

Australia: Production for 1998/99 is estimated at a record 3.3 million bales, up 0.2 million or 8 percent from last year. High reservoir levels and heavy rains during September-October boosted cotton production prospects this season. As a result, both irrigated and dryland cotton areas are projected to increase. Planted area is estimated at a record 520,000 hectares, up 32,000 hectares or 7 percent from last year. Due to plentiful irrigation water and soil moisture, a record 380,000 hectares of irrigated cotton are forecast, up 35,000 hectares from last season.



Dryland cotton increased from 80,000 hectares last year to 140,000 hectares in 1998/99 due to good soil moisture and continued favorable returns to cotton relative to other summer crops. However, a lower total-yield is expected because of the increase in area for dryland cotton and marginal land. The current

lower-than-normal temperature, which has put the crop back around two weeks, could reduce yield potential if it is the prevails over the next two months.

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TABLE 20

## MAJOR COTTON PRODUCERS

	480-LB BALES (1000)	PERCENT OF PRODUCTION	YIELD (Kg/ha.)	AREA HARVESTED (1000 ha.)	PERCENT OF AREA	LINT MT (1000)
1998/99						
WORLD	84,197	100.00	560	32,748	100.00	18,332
FOREIGN	70,745	84.02	540	28,544	87.16	15,403
TOP SEVEN	64,352	76.43	596	23,494	71.74	14,011
China	18,800	22.33	910	4,500	13.74	4,093
United States	13,452	15.98	697	4,204	12.84	2,929
India	13,000	15.44	309	9,170	28.00	2,830
Pakistan	7,500	8.91	563	2,900	8.86	1,633
Uzbekistan	4,600	5.46	668	1,500	4.58	1,002
Turkey	3,700	4.39	1,151	700	2.14	806
Australia	3,300	3.92	1,382	520	1.59	718
Other	19,845	23.57	467	9,254	28.26	4,321
1997/98						
WORLD	91,391	100.00	594	33,515	100.00	19,898
FOREIGN	72,598	79.44	562	28,145	83.98	15,807
TOP SEVEN	71,214	77.92	637	24,322	72.57	15,505
China	21,100	23.09	1,021	4,500	13.43	4,594
United States	18,793	20.56	762	5,370	16.02	4,092
India	12,258	13.41	302	8,850	26.41	2,669
Pakistan	7,000	7.66	515	2,959	8.83	1,524
Uzbekistan	5,300	5.80	778	1,483	4.42	1,154
Turkey	3,700	4.05	1,116	722	2.15	806
Australia	3,063	3.35	1,523	438	1.31	667
Other	20,177	22.08	478	9,193	27.43	4,393
CHANGE FROM 1997/98						
	480-lb BALES (1000)	480-lb BALES (% CHANGE)	SHARE OF CHANGE (PERCENT)	AREA HARVESTED (1000 Ha)	AREA HARVESTED (% CHANGE)	SHARE OF CHANGE (PERCENT)
WORLD	-7194	-8	100.00	-767	-2	100.00
FOREIGN	-1853	-3	47.39	399	1	32.48
TOP SEVEN	-6862	-10	96.73	-828	-3	96.47
China	-2300	-11	22.66	0	0	0.00
United States	-5341	-28	52.61	-1166	-22	67.52
India	742	6	7.31	320	4	18.53
Pakistan	500	7	4.93	-59	-2	3.42
Uzbekistan	-700	-13	6.90	17	1	0.98
Turkey	0	0	0.00	-22	-3	1.27
Australia	237	8	2.33	82	19	4.75
Other	-332	-2	3.27	61	1	3.53



In October, an FAS analyst and the U.S. agricultural attache in Beijing traveled to Xinjiang Uygur Autonomous Region in northwest China. They met with agricultural officials and others to discuss the current grain, cotton, and livestock situation in Xinjiang. They also visited Xinjiang Agricultural University in Urumqi, the capital of Xinjiang, and discussed these topics with members of the faculty. Later, they traveled to Kashgar prefecture, located in western Xinjiang, to meet with local government officials and discuss the agricultural situation in the region. At the time of the visit in mid-October, harvesting was underway or completed for cotton, rice, and corn, and planting had started for the 1999/2000 winter wheat crop. The following report is based, in part, on information gathered during the trip.

Overview of Xinjiang Uygur Autonomous Region: Xinjiang Uygur Autonomous Region, the largest province in China, is located in the northwest corner of the country and bordered by Mongolia, Kazakstan, Kyrgyzstan, Tajikistan, Afghanistan, Pakistan, and India. Although it ranks first in size, it ranks 23<sup>rd</sup> (out of 31 provinces and municipalities) in crop area and 24<sup>th</sup> in population. Xinjiang's 17 million people represent many different ethnic groups, including Uygur, Han, Kazak, Hui, Mongolian, Kirgiz, Tajik, Russian, Manchu, and Tatar.

Xinjiang is a land of extreme topography and climate. The elevation varies from 28,240 feet at the top of Qogir Peak to 540 feet below sea level in the Turpan Depression. There are several large mountain ranges -- the Kunlun, Karakorum, and Altun Ranges in the south; the Altay Range in the north; and the Tian Shan Range in the central region. Deserts cover huge areas of southern, eastern and northern Xinjiang, and the average annual

rainfall is only 150 to 200 mm (6 to 8 inches). Due to the dry climate, cultivation is only possible where rivers, fed by melting snow, flow down from the mountains and provide water for irrigation. Xinjiang is also vulnerable to natural disasters such as drought, blizzards, windstorms, and floods. Despite these difficulties, Xinjiang has several agricultural advantages: a long growing season of 170 to 200 days, nearly 3 million hectares of arable land, bright sunshine, expansive grasslands, and a reliable supply of irrigation water.

Cotton: Xinjiang's most important agricultural crop is cotton. The sunny and dry climate is considered nearly ideal for cotton cultivation, and pests such as aphids and bollworms are a smaller problem compared to the China's eastern cotton-growing provinces. Xinjiang was once a minor cotton producer and ranked far behind Hebei, Shandong, and other provinces in eastern and northern China, but the situation is now reversed. Government policy and high procurement prices have encouraged rapid area expansion, and yield has improved with the introduction of better seeds and crop management techniques. Output has risen steadily over the past 10 years, and Xinjiang is now the largest producer of cotton in the country, accounting for 25 percent of China's total harvest. Production in 1997/98 reached a record 5.3 million bales, and output in 1998/99 is expected to equal or exceed last year's crop despite unfavorably cold and wet weather early in the season. Provincial agriculture officials predict that Xinjiang will soon achieve its goal of producing 6.9 million bales of cotton each year, lifting its share of national output to more than 40 percent. Upland cotton accounts for about 80 percent of the crop. Only a small amount of long-staple cotton is grown and there are no plans for its expansion. Although cotton is grown

throughout the province, the highest yields come from Kashgar prefecture in western Xinjiang. Last year, Kashgar produced about one third of Xinjiang's output, or more than 8 percent of China's total crop.

Approximately one third of Xinjiang's cotton land is organized into large state farms that are operated by the Production and Construction Corps, a branch of the military. Most of these farms are located in the southern part of the province. The remaining cotton land is leased to individual farm households in units averaging 0.2 to 3.0 hectares. Transportation is difficult and costly because of Xinjiang's large size and distance to the major population centers in the east. For example, cotton from Kashgar must be shipped by truck nearly 1,000 kilometers to the nearest rail junction at Korla, which itself is roughly 3,500 kilometers from Shanghai on the east coast. Because of this added transportation cost, the central government has lowered the selling price for Xinjiang cotton to make it more competitive with cotton grown in other regions. There are very few spinning mills in Xinjiang. Most of the crop is purchased by the provincial Cotton Bureau and shipped to other provinces to be milled and exported.

The Chinese Government will hold a series of conferences over the next few months to decide on next year's area and price targets, which are likely to reflect the government's need to reduce the costs of bringing and storing cotton, while improving the competitiveness of the domestic textile industry. Some officials are concerned that cotton area may have expanded excessively in some areas of Xinjiang, and there are plans to reduce the rate of growth by taking some marginal cotton land out of production.

Grain: Xinjiang is not a major grain producer, but the situation is stable and the province is nearly self-sufficient. Total grain production

in 1997/98 was only 8.3 million tons, less than 2 percent of China's total output. Wheat is the most important grain crop, followed by corn and rice. Most of the grain is grown by farmers for personal consumption, and government-held stocks are very small. Xinjiang reported a good 1998 summer grain crop of 4.6 million tons, despite various weather problems during the growing season, and a good autumn grain crop is anticipated.

Wheat production in 1997/98 reached 4.4 million tons, and a similar output is expected for 1998/99. Area has been gradually declining for several years, but rising yield has led to increased production. Wheat is grown throughout the province, but the highest yields come from the Ili River region in the northwest section of the province. Winter wheat, which is usually double-cropped with cotton or corn, accounts for two thirds of the total crop. Xinjiang is reportedly the only province in China where hard winter wheat is grown. It also produces soft winter wheat and has developed salt-tolerant varieties. Although most wheat is consumed locally and very little sold outside the province, there is talk of possible exports to the former Soviet Union, which could encourage farmers to increase production in the future.

Corn is an insignificant crop in Xinjiang. Although output has increased by 42 percent in the last 5 years, total production is still less than 3.0 million tons. Because of the small size of its poultry and swine industries, production is not expected to increase significantly. Farmers keep most of the output for their own use and sell the surplus to the local Grain Bureaus. A small amount of the crop is sold to surrounding provinces for feed and alcohol production, but high transportation costs make exports unprofitable.

Despite its rugged climate, rice is grown along



several rivers in Xinjiang where water is abundant and natural conditions are suitable. Production in 1997/98 exceeded 0.5 million tons, and a similar crop is expected in 1998/99. Although this is one of the smallest rice crops of any Chinese province, yield is higher than the national average and Xinjiang is nearly self-sufficient.

Oilseeds: Cottonseed output reached an estimated 2.0 million tons in 1997/98, making it Xinjiang's most important oilseed crop. Unlike cotton, which is purchased by the provincial Cotton Bureau and exported, cottonseed is purchased from farmers by county-level governments and crushed in small local mills. About 85 to 90 percent of the crop is crushed for oil and consumed within the province. Sunflowerseed is another important oilseed crop in Xinjiang. It is popular with farmers because prices are high and it can be grown in areas unsuitable for other crops. Production rose 600 percent in the early 1980's before stabilizing between 150,000 and 200,000 tons. Sunflowerseed production hit 180,000 tons in 1997/98, and a similar output is expected in 1998/99. Most of the crop is crushed for oil in a few small mills, but a fair amount is consumed as a snack food. Although soybeans grow well in Xinjiang and yield is higher than the national average, output in 1997/98 was only 82,000 tons. Production is unlikely to increase due to a lack of demand for soybean oil (cottonseed oil and sunflowerseed oil are widely available), an underdeveloped feed industry which uses little soymeal, and higher net returns from many alternative crops.

Other Crops: Xinjiang has an excellent climate for horticulture and a long history of fruit and vegetable production. An estimated 25 percent of China table grapes come from Xinjiang, along with large quantities of nectarines, pears, apples, pomegranates, melons, dried fruit, and greenhouse vegetables.

Sown area has been increasing rapidly for these highly-profitable cash crops. Exports to other parts of China and overseas are also growing, despite Xinjiang's long distance to markets and the cost of transporting fresh produce. Agriculture officials are eager to expand Xinjiang's food-processing industry and introduce new and improved varieties of fruit and vegetables to meet the demands of the national and international markets. Sugar beet production is expected to be near 4.0 million tons in 1998/99, making Xinjiang the second-largest producer after Heilongjiang Province.

Livestock: There are nearly 40 million head of livestock in Xinjiang, including about 27 million sheep, 5.7 million goats, 4.0 million beef and dairy cattle, 1.4 million hogs, 1.0 million horses, and 180,000 camels. Livestock has seen a 10 percent growth rate for the last 3 years, and the number of livestock is increasing by 1 million head per year. The province is self-sufficient in meat, although per capita consumption of 37 kilograms per year is lower than the national average, due in part to the relative shortage of pork and poultry. The dairy industry is gradually developing and there is an active hide and leather industry in the province, although processing facilities are poor and the quality is not up to national standards. Officials would like to increase exports of meat to the Middle East and south China, but Xinjiang lacks the facilities to freeze meat and ship it long distances.

The number of livestock is directly dependent on the size and quality of Xinjiang's grasslands. Although Xinjiang has an estimated 23 million hectares of productive pasture land, overgrazing has become a serious problem in many areas. Rainfall in Xinjiang is often scarce and erratic, and droughts have had a devastating impact on livestock. The province's lush mountain pastures are critically important to livestock producers, who depend

on them for seasonal grazing and winter hay. A small amount of corn and plant residue is also imported for supplemental feeding. Some producers are starting to move livestock into grain-production areas for fattening before slaughter, but the feed industry is still underdeveloped. Provincial officials would welcome foreign investment in Xinjiang's feed and meat-processing industries.

Conclusion: Agriculture in Xinjiang is dominated by three products: cotton, horticulture crops, and range-fed livestock. Cotton has shown the most expansion over the years and is likely to become even more important as production continues to decline in

other areas of the country. Some local agricultural experts warn that Xinjiang is becoming too dependent on cotton and suggest that the province place a greater emphasis on its horticulture sector, where it has a natural comparative advantage. Livestock raising will always be an important activity in Xinjiang, and the province is starting to adopt more efficient feeding practices and address some of the ecological consequences of overgrazing. Xinjiang is working hard to make the best use of its nique agricultural resources and participate more fully in China's national economy.

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## WEST AFRICAN GRAIN PRODUCTION

Total grain production in West Africa for 1998/99 is forecast at 32.75 million tons, up from 31.49 million in 1997/98. Area harvested for 1998/99 is forecast at 37.02 million hectares, up from 36.72 million in 1997/98. For the purpose of this article West Africa includes the following countries: Benin, Burkina Faso, Cape Verde, Chad, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

Overall growing conditions in West Africa have been favorable, despite a late start in the season. Grain production increased in Benin, Burkina Faso, Gambia, Mauritania, Niger, Nigeria, and Senegal mainly due to favorable weather conditions. In Cape Verde, Chad, Guinea, Guinea-Bissau, Liberia, Mali, and Togo grain production remained virtually unchanged from last year. Cote d'Ivoire, Ghana, and Sierra Leone all had production deficits due mostly to erratic rainfall.

Benin: Total grain output in Benin for 1998/99 is forecast at 0.65 million tons, up from 0.60 million in 1997/98. Area harvested in 1998/99 is forecast at 0.68 million hectares, up 7 percent from 1997/98. The main grain crops produced are corn and sorghum forecast at 0.50 million and 0.11 million tons, respectively. Widespread rainfall over the entire country in July and August benefitted the crops. Grain production is above normal in the south and north, but slightly below average in the center around Parakou.

Burkina Faso: In Burkina Faso, total grain production for 1998/99 is forecast at 2.47 million tons, up from 1.83 million in 1997/98. Area harvested is forecast at 2.88 million hectares, up 0.10 million in 1997/98. The main grain crops produced are sorghum, millet, and corn forecast at 1.30 million, 0.80

million, and 0.30 million tons, respectively. Rainfall was favorable throughout most of the growing season, but decreased in late-August. September experienced sporadic rainfall, but soil moisture reserves were adequate. Overall crop conditions were good, except in some low-lying areas affected by excess water. Some insect infestation were reported. Disease problems appeared on millet and sorghum in some western provinces.

Cape Verde: Total grain production in Cape Verde for 1998/99 is forecast at 10,000 tons, the same as last year. Area harvested in 1998/99 is forecast at 15,000 hectares, also the same as the previous year. The main grain crop produced is corn forecast at 10,000 tons. Grasshopper infestation developed on most of the islands and caused some damage to the corn crop on Santiago Island.

Chad: In Chad, total grain production for 1998/99 is forecast at 0.80 million tons, unchanged from last year. Area harvested in 1998/99 is forecast at 1.28 million hectares, virtually the same as 1997/98. The main grain crop produced is millet forecast at 0.65 million tons. Most crops were allowed to complete their development with very good rains throughout September. An increase in crop output for the Sahelian Zone and southern Sudania Zone was offset by poor harvests in the western Sudanian Zone. Although grasshoppers were reportedly feeding on millet in several regions, overall, there have been no major problems with pest this season.

Cote d'Ivoire: Total grain production in Cote d'Ivoire for 1998/99 is forecast at 1.08 million tons, down from 1.13 million in 1997/98. Area harvested in 1998/99 is forecast at 1.44 million hectares, down slightly from 1997/98 due to dry weather. The main grain crops produced are corn and rice forecast at 0.62

million and 0.36 million tons, respectively. Rice production declined due to erratic rains in the south of the country. Also, insufficient rains caused many upland rice fields to be abandoned, but production in the northern area of Cote d'Ivoire, about 25 percent of total-rice, production is expected to increase due to favorable rain.

Gambia: In the Gambia, total grain production for 1998/99 is forecast at 94,000 tons, up from 83,000 tons in 1997/98. Area harvested in 1998/99 is forecast at 89,000 hectares, up 6,000 hectares from 1997/98. The main grain crop produced is millet forecast at 50,000 tons. The season started late in July, with rainfall becoming widespread in August and September. The crops developed satisfactorily.

Ghana: Total grain production in Ghana for 1998/99 is forecast at 1.39 million tons, down from 1.58 million in 1997/98. Area harvested in 1998/99 is forecast at 1.18 million hectares, down from 1.27 million in 1997/98. The main grain crops produced are corn and sorghum forecast at 0.85 million and 0.30 million tons, respectively. Rain patterns were erratic for the past three seasons and hampered farming and other agricultural activities. Corn, the most important grain, is grown in all the ecological zones of Ghana. Erratic rains and a decline in soil fertility caused corn production to decline this season. Sorghum and millet are grown mainly in the Savannah Zone of Ghana and with erratic rains, area and yield decreased.

Guinea: In Guinea for 1998/99 grain production is forecast at 0.63 million tons, the same as last year. Area harvested in 1998/99 is forecast at 0.73 million hectares, marginally below last year. The main grain crops produced are rice and millet forecast at 0.45 million and 0.10 million tons, respectively. With abundant and widespread rains, overall crop prospects for the 1998/99 harvest is

favorable.

Guinea-Bissau: Total grain production for 1998/99 is forecast at 0.15 million tons, the same as last year. Area harvested in 1998/99 is forecast at 0.13 million hectares, virtually unchanged from 1997/98. The main grain crops produced are rice and sorghum forecast at 80,000 and 50,000 tons, respectively. Civil disturbances that began in June and ended late-July impeded normal agricultural activities at the critical planting period. Rains remained abundant and widespread over the entire country, leading to desalinization of swamp rice fields and development of the transplanted rice.

Liberia: In Liberia for 1998/99, grain production is forecast at 60,000 tons, unchanged from 1997/98. Area harvested in 1998/99 is forecast at 75,000 hectares unchanged from last season. The main grain crop produced is rice forecast at 60,000 tons. The country had abundant rains during the entire growing season which resulted in a relatively good rice crop. Many of the rural areas of Liberia suffered seed shortages, resulting in limited production.

Mali: Total grain production in 1998/99 is forecast at 1.95 million tons, down marginally from 2.00 million in 1997/98. Area harvested in 1998/99 is forecast at 2.25 million hectares, unchanged from last year. The main grain crops produced are millet, rice, and corn forecast at 1.30 million, 0.35 million, and 0.30 million tons, respectively. Mali's rain-fed and irrigated grain production outlook is good. In the north, the normal production deficit areas of Koulikoro, Kayes, and Mopti Regions harvested an above average crop due to abundant rainfall. However, in the normal production surplus area of Segon Region, poorly distributed rains resulted in a below average harvest. There are reports that a considerable amount of grain eating birds are



affecting the millet crop in the border areas of Mali.

Mauritania: In Mauritania for 1998/99 grain production is forecast at 0.15 million tons, up from 0.10 million in 1997/98. Area harvested in 1998/99 is forecast at 0.20 million hectares, up slightly from 1997/98. The main grain crop produced is sorghum forecast at 0.10 million tons. Most rain-fed upland crops that account for nearly half of the country's grain production are estimated to produce an average harvest due to late rains at planting. However with no major pest damage and better crop management, the irrigated grain crops increased along the Senegal River.

Niger: Total grain production in 1998/99 is forecast at 2.32 million tons, up from 2.20 million in 1997/98. Area harvested in 1998/99 is forecast at 6.63 million hectares, up from 6.53 million in 1997/98. The main grain crops produced are millet and sorghum forecast at 1.85 million and 0.43 million tons, respectively. According to the Ministry of Agriculture, crop development was good and the only district that is expected to have below normal production is Madaoua. Late-planted crops were stressed by low rains and high temperatures in some districts, but widespread rainfall helped the crops recover.

Nigeria: In Nigeria, total grain production for 1998/99 is forecast at 19.27 million tons, up 0.60 million from 1997/98. Area harvested in 1998/99 is forecast at 17.18 million hectares, up marginally from last season. The main grain crops produced are sorghum, millet, corn, and rice forecast at 7.3 million, 5.2 million, 4.9 million, and 1.9 million tons, respectively. Sorghum, the most widely cultivated grain in Nigeria, occupies over 40 percent of area devoted to grains. Area cultivated increased 2 percent and a lack of fertilizer caused a small shift in the corn growing areas to sorghum. Rice cultivation in

Nigeria is widespread, but production is constrained by a lack of good quality seed, as well as poor harvesting, and processing procedures. Corn is a very important crop that is grown in all five of the agro-ecological zones of the country. Corn yield has stagnated as inadequate amounts of fertilizer is available for farmers' use; however, use of hybrid varieties are increasing.

Senegal: Total grain production for 1998/99 is forecast at 0.86 million tons, up from 0.70 million in 1997/98. Area harvested is forecast at 1.24 million hectares, up from 1.11 million in 1997/98. The main grain crops produced are millet and sorghum forecast at 0.55 million and 0.11 million tons, respectively. Grain production increased due to favorable weather conditions despite a delay in the rainy season. Rice production is increasing especially along the Senegal River Valley due to increasing yields in irrigated areas and positive changes in the country's agriculture policy. In the Casamance region, the second largest rice producing area, farming is mainly subsistence and is continuously being hampered by civil disturbance.

Sierra Leone: In Sierra Leone, total grain production for 1998/99 is forecast at 0.24 million tons, down from 0.28 million in 1997/98. Area harvested in 1998/99 is forecast at 0.30 million hectares, the same as the previous year. The main grain crop produced is rice forecast at 0.21 million tons. Grain production is estimated to decline this year due to continuous insecurity in rural areas and population displacement during the country's growing season. An acute rice seed shortage has further limited production in the country.

Togo: Total grain production for 1998/99 is forecast at 0.66 million tons, unchanged from 1997/98. Area harvested in 1998/99 is forecast at 0.73 million hectares, the same as

last year. The main grain crops produced are corn and millet forecast at 0.45 million and 0.18 million tons, respectively. The millet and

corn crops benefitted from good growing conditions this year and as a result production was near normal.

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TABLE 21

## WEST AFRICA: AREA, YIELD AND PRODUCTION

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
<b>Benin</b>										
Corn										
AREA (1,000 Ha)	490	480	480	470	500	480	530	450	450	490
YIELD (Mt/Ha)	0.88	0.80	0.79	0.98	1.00	1.02	1.13	1.11	1.00	1.02
PROD (1,000 Mt)	430	385	380	460	500	490	600	500	450	500
Millet										
AREA (1,000 Ha)	35	35	38	40	36	37	35	35	35	35
YIELD (Mt/Ha)	0.86	0.89	0.87	0.65	0.67	0.68	0.71	0.71	0.71	0.71
PROD (1,000 Mt)	30	31	33	26	24	25	25	25	25	25
Rice, Milled										
AREA (1,000 Ha)	8	7	7	7	7	8	10	13	10	10
YIELD (Mt/Ha)	0.88	0.86	0.86	0.86	0.86	0.88	1.10	1.23	1.00	1.00
PROD (1,000 Mt)	7	6	6	6	6	7	11	16	10	10
Sorghum										
AREA (1,000 Ha)	120	131	135	143	138	145	140	145	135	140
YIELD (Mt/Ha)	0.75	0.76	0.78	0.77	0.76	0.78	0.79	0.76	0.81	0.79
PROD (1,000 Mt)	90	100	105	110	105	113	110	110	110	110
Total Grains										
AREA (1,000 Ha)	653	653	660	660	681	670	715	643	630	675
YIELD (Mt/Ha)	0.85	0.80	0.79	0.91	0.93	0.95	1.04	1.01	0.94	0.96
PROD (1,000 Mt)	557	522	524	602	635	635	746	651	595	645
<b>Burkina Faso</b>										
Corn										
AREA (1,000 Ha)	174	165	250	252	197	218	160	230	170	230
YIELD (Mt/Ha)	1.09	0.73	1.00	1.35	1.38	1.61	1.31	1.30	1.29	1.30
PROD (1,000 Mt)	190	120	250	341	271	350	210	300	220	300
Millet										
AREA (1,000 Ha)	1,100	1,000	1,150	1,204	1,293	1,312	1,150	1,200	1,150	1,200
YIELD (Mt/Ha)	0.61	0.58	0.74	0.65	0.70	0.63	0.63	0.67	0.52	0.67
PROD (1,000 Mt)	675	580	850	785	899	831	730	800	600	800
Rice, Milled										
AREA (1,000 Ha)	20	20	25	25	35	30	35	60	50	50
YIELD (Mt/Ha)	1.35	1.35	0.80	0.80	1.00	1.33	1.57	1.25	1.30	1.30
PROD (1,000 Mt)	27	27	20	20	35	40	55	75	65	65
Sorghum										
AREA (1,000 Ha)	1,295	1,190	1,300	1,400	1,476	1,549	1,600	1,600	1,400	1,400
YIELD (Mt/Ha)	0.78	0.69	0.85	0.92	0.89	0.80	0.79	0.78	0.67	0.93
PROD (1,000 Mt)	1,009	820	1,100	1,292	1,310	1,232	1,270	1,250	940	1,300
Total Grains										
AREA (1,000 Ha)	2,589	2,375	2,725	2,881	3,001	3,109	2,945	3,090	2,770	2,880
YIELD (Mt/Ha)	0.73	0.65	0.81	0.85	0.84	0.79	0.77	0.78	0.66	0.86
PROD (1,000 Mt)	1,901	1,547	2,220	2,438	2,515	2,453	2,265	2,425	1,825	2,465

TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
<b>Cape Verde</b>										
Corn										
AREA (1,000 Ha)	10	15	5	20	10	10	15	15	15	15
YIELD (Mt/Ha)	0.70	0.67	0.80	0.50	1.20	0.90	0.67	0.67	0.67	0.67
PROD (1,000 Mt)	7	10	4	10	12	9	10	10	10	10
Total Grains										
AREA (1,000 Ha)	10	15	5	20	10	10	15	15	15	15
YIELD (Mt/Ha)	0.70	0.67	0.80	0.50	1.20	0.90	0.67	0.67	0.67	0.67
PROD (1,000 Mt)	7	10	4	10	12	9	10	10	10	10
<b>Chad</b>										
Corn										
AREA (1,000 Ha)	70	62	79	70	69	111	70	85	80	80
YIELD (Mt/Ha)	0.64	0.65	0.89	1.29	1.45	0.85	0.86	0.88	1.00	1.00
PROD (1,000 Mt)	45	40	70	90	100	94	60	75	80	80
Millet										
AREA (1,000 Ha)	975	960	1,100	1,090	1,090	1,197	1,150	1,150	1,125	1,135
YIELD (Mt/Ha)	0.67	0.47	0.61	0.62	0.50	0.57	0.58	0.57	0.58	0.57
PROD (1,000 Mt)	650	450	670	680	540	686	668	650	650	650
Rice, Milled										
AREA (1,000 Ha)	25	40	50	55	50	55	50	55	60	60
YIELD (Mt/Ha)	0.60	1.00	1.00	1.09	0.50	1.09	0.90	1.00	1.00	1.00
PROD (1,000 Mt)	15	40	50	60	25	60	45	55	60	60
Wheat										
AREA (1,000 Ha)	4	4	3	4	4	4	4	4	4	4
YIELD (Mt/Ha)	1.50	1.50	1.33	1.50	1.50	1.50	1.50	1.50	1.50	1.50
PROD (1,000 Mt)	6	6	4	6	6	6	6	6	6	6
Total Grains										
AREA (1,000 Ha)	1,074	1,066	1,232	1,219	1,213	1,367	1,274	1,294	1,269	1,279
YIELD (Mt/Ha)	0.67	0.50	0.64	0.69	0.55	0.62	0.61	0.61	0.63	0.62
PROD (1,000 Mt)	716	536	794	836	671	846	779	786	796	796



TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Cote d'Ivoire										
Corn										
AREA (1,000 Ha)	650	620	650	625	660	675	685	690	700	690
YIELD (Mt/Ha)	0.82	0.79	0.83	0.79	0.82	0.83	0.87	0.90	0.91	0.90
PROD (1,000 Mt)	530	490	540	495	540	560	595	620	640	620
Millet										
AREA (1,000 Ha)	75	80	82	81	83	85	88	90	95	95
YIELD (Mt/Ha)	0.68	0.70	0.72	0.70	0.63	0.64	0.68	0.72	0.74	0.74
PROD (1,000 Mt)	51	56	59	57	52	54	60	65	70	70
Rice, Milled										
AREA (1,000 Ha)	620	625	630	615	625	635	645	680	650	600
YIELD (Mt/Ha)	0.65	0.63	0.63	0.62	0.62	0.63	0.64	0.65	0.60	0.60
PROD (1,000 Mt)	400	394	398	380	387	398	410	445	390	360
Sorghum										
AREA (1,000 Ha)	45	46	48	45	48	50	53	55	58	58
YIELD (Mt/Ha)	0.69	0.70	0.71	0.67	0.63	0.60	0.51	0.55	0.52	0.52
PROD (1,000 Mt)	31	32	34	30	30	30	27	30	30	30
Total Grains										
AREA (1,000 Ha)	1,390	1,371	1,410	1,366	1,416	1,445	1,471	1,515	1,503	1,443
YIELD (Mt/Ha)	0.73	0.71	0.73	0.70	0.71	0.72	0.74	0.77	0.75	0.75
PROD (1,000 Mt)	1,012	972	1,031	962	1,009	1,042	1,092	1,160	1,130	1,080
Gambia										
Corn										
AREA (1,000 Ha)	14	12	13	12	15	16	15	15	10	15
YIELD (Mt/Ha)	1.79	1.33	1.46	1.42	1.60	1.38	1.33	1.33	1.00	1.33
PROD (1,000 Mt)	25	16	19	17	24	22	20	20	10	20
Millet										
AREA (1,000 Ha)	45	43	44	41	51	49	50	50	50	50
YIELD (Mt/Ha)	1.22	1.16	1.23	1.12	1.02	1.10	1.10	1.10	1.00	1.00
PROD (1,000 Mt)	55	50	54	46	52	54	55	55	50	50
Rice, Milled										
AREA (1,000 Ha)	25	22	22	11	8	12	12	13	13	13
YIELD (Mt/Ha)	1.04	1.00	1.00	1.09	1.00	1.08	1.08	1.00	1.00	1.00
PROD (1,000 Mt)	26	22	22	12	8	13	13	13	13	13
Sorghum										
AREA (1,000 Ha)	10	13	13	13	8	11	12	12	10	11
YIELD (Mt/Ha)	1.50	0.92	1.00	0.92	1.13	1.09	1.08	1.08	1.00	1.00
PROD (1,000 Mt)	15	12	13	12	9	12	13	13	10	11
Total Grains										
AREA (1,000 Ha)	94	90	92	77	82	88	89	90	83	89
YIELD (Mt/Ha)	1.29	1.11	1.17	1.13	1.13	1.15	1.13	1.12	1.00	1.06
PROD (1,000 Mt)	121	100	108	87	93	101	101	101	83	94

TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
<b>Ghana</b>										
Corn										
AREA (1,000 Ha)	567	465	610	607	637	629	670	665	660	630
YIELD (Mt/Ha)	1.26	1.19	1.52	1.20	1.51	1.49	1.54	1.50	1.52	1.35
PROD (1,000 Mt)	715	553	930	730	960	940	1,035	1,000	1,000	850
Millet										
AREA (1,000 Ha)	244	124	209	210	200	191	193	190	190	170
YIELD (Mt/Ha)	0.82	0.60	0.54	0.62	1.00	0.88	1.09	1.02	0.74	0.74
PROD (1,000 Mt)	200	75	113	130	200	168	210	193	140	125
Rice, Milled										
AREA (1,000 Ha)	72	50	95	80	77	80	100	105	109	100
YIELD (Mt/Ha)	0.56	0.98	0.96	0.98	1.22	1.25	1.32	1.24	1.08	1.10
PROD (1,000 Mt)	40	49	91	78	94	100	132	130	118	110
Sorghum										
AREA (1,000 Ha)	286	215	262	307	310	299	335	315	315	280
YIELD (Mt/Ha)	1.05	0.63	0.92	0.85	1.06	1.08	1.07	1.11	1.02	1.07
PROD (1,000 Mt)	300	136	241	260	328	324	360	350	320	300
Total Grains										
AREA (1,000 Ha)	1,169	854	1,176	1,204	1,224	1,199	1,298	1,275	1,274	1,180
YIELD (Mt/Ha)	1.07	0.95	1.17	1.00	1.29	1.28	1.34	1.31	1.24	1.17
PROD (1,000 Mt)	1,255	813	1,375	1,198	1,582	1,532	1,737	1,673	1,578	1,385
<b>Guinea</b>										
Corn										
AREA (1,000 Ha)	50	55	50	90	86	95	90	85	85	85
YIELD (Mt/Ha)	1.00	1.09	1.00	1.06	1.20	1.20	1.00	0.94	0.94	0.94
PROD (1,000 Mt)	50	60	50	95	103	114	90	80	80	80
Millet										
AREA (1,000 Ha)	155	160	200	155	165	170	160	160	170	165
YIELD (Mt/Ha)	0.55	0.56	0.55	0.55	0.61	0.65	0.63	0.63	0.59	0.61
PROD (1,000 Mt)	85	90	110	85	100	110	100	100	100	100
Rice, Milled										
AREA (1,000 Ha)	575	490	400	400	400	400	425	450	475	475
YIELD (Mt/Ha)	0.48	0.66	0.81	0.81	0.88	0.88	0.96	0.96	0.95	0.95
PROD (1,000 Mt)	277	325	325	325	350	350	410	430	450	450
Total Grains										
AREA (1,000 Ha)	780	705	650	645	651	665	675	695	730	725
YIELD (Mt/Ha)	0.53	0.67	0.75	0.78	0.85	0.86	0.89	0.88	0.86	0.87
PROD (1,000 Mt)	412	475	485	505	553	574	600	610	630	630



TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Guinea-Bissau										
Corn										
AREA (1,000 Ha)	30	35	35	10	13	13	15	15	15	15
YIELD (Mt/Ha)	0.83	0.66	0.71	1.00	1.00	1.08	1.00	1.00	1.00	1.00
PROD (1,000 Mt)	25	23	25	10	13	14	15	15	15	15
Rice, Milled										
AREA (1,000 Ha)	120	120	125	65	71	65	65	65	70	65
YIELD (Mt/Ha)	0.87	0.87	0.86	1.25	1.14	1.31	1.32	1.31	1.14	1.23
PROD (1,000 Mt)	104	104	107	81	81	85	86	85	80	80
Sorghum										
AREA (1,000 Ha)	30	30	50	40	50	45	50	50	50	50
YIELD (Mt/Ha)	0.83	0.83	0.80	0.85	0.80	1.22	1.02	1.00	1.00	1.00
PROD (1,000 Mt)	25	25	40	34	40	55	51	50	50	50
Total Grains										
AREA (1,000 Ha)	180	185	210	115	134	123	130	130	135	130
YIELD (Mt/Ha)	0.86	0.82	0.82	1.09	1.00	1.25	1.17	1.15	1.07	1.12
PROD (1,000 Mt)	154	152	172	125	134	154	152	150	145	145
Liberia										
Rice, Milled										
AREA (1,000 Ha)	235	175	165	170	60	45	50	75	75	75
YIELD (Mt/Ha)	0.71	0.72	0.73	0.36	0.65	0.44	0.70	0.80	0.80	0.80
PROD (1,000 Mt)	168	126	120	61	39	30	35	60	60	60
Total Grains										
AREA (1,000 Ha)	235	175	165	170	60	45	50	75	75	75
YIELD (Mt/Ha)	0.71	0.72	0.73	0.36	0.65	0.67	0.70	0.80	0.80	0.80
PROD (1,000 Mt)	168	126	120	61	39	30	35	60	60	60
Mali										
Corn										
AREA (1,000 Ha)	175	175	190	190	257	284	235	205	200	200
YIELD (Mt/Ha)	1.31	1.29	1.58	1.39	1.10	1.13	1.23	1.29	1.50	1.50
PROD (1,000 Mt)	230	225	300	265	283	320	290	265	300	300
Millet										
AREA (1,000 Ha)	1,500	1,600	1,700	1,924	2,286	2,381	2,300	2,150	1,700	1,700
YIELD (Mt/Ha)	0.90	0.88	0.97	0.62	0.61	0.67	0.63	0.70	0.76	0.76
PROD (1,000 Mt)	1,350	1,400	1,650	1,184	1,400	1,604	1,460	1,500	1,300	1,300
Rice, Milled										
AREA (1,000 Ha)	235	240	250	257	258	284	280	300	350	350
YIELD (Mt/Ha)	0.77	0.76	1.18	1.03	1.09	1.09	1.07	1.03	1.14	1.00
PROD (1,000 Mt)	180	182	295	265	282	310	300	310	400	350
Total Grains										
AREA (1,000 Ha)	1,910	2,015	2,140	2,371	2,801	2,949	2,815	2,655	2,250	2,250
YIELD (Mt/Ha)	0.92	0.90	1.05	0.72	0.70	0.76	0.73	0.78	0.89	0.87
PROD (1,000 Mt)	1,760	1,807	2,245	1,714	1,965	2,234	2,050	2,075	2,000	1,950



TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Mauritania										
Corn										
AREA (1,000 Ha)	3	1	3	4	6	13	3	3	3	3
YIELD (Mt/Ha)	0.67	1.00	0.67	0.75	1.17	0.46	1.00	1.00	1.00	1.00
PROD (1,000 Mt)	2	1	2	3	7	6	3	3	3	3
Millet										
AREA (1,000 Ha)	25	24	24	25	25	25	25	25	23	25
YIELD (Mt/Ha)	0.56	0.54	0.54	0.60	0.60	0.60	0.40	0.40	0.43	0.40
PROD (1,000 Mt)	14	13	13	15	15	15	10	10	10	10
Rice, Milled										
AREA (1,000 Ha)	11	10	10	12	22	19	20	20	20	20
YIELD (Mt/Ha)	2.82	2.10	2.10	2.92	2.00	1.89	1.85	1.85	1.75	1.75
PROD (1,000 Mt)	31	21	21	35	44	36	37	37	35	35
Sorghum										
AREA (1,000 Ha)	140	90	120	100	156	255	246	200	140	150
YIELD (Mt/Ha)	0.75	0.56	0.50	0.50	0.59	0.58	0.65	0.73	0.36	0.67
PROD (1,000 Mt)	105	50	60	50	92	147	160	145	50	100
Total Grains										
AREA (1,000 Ha)	179	125	157	141	209	312	294	248	186	198
YIELD (Mt/Ha)	0.85	0.68	0.61	0.73	0.76	0.65	0.71	0.79	0.53	0.75
PROD (1,000 Mt)	152	85	96	103	158	204	210	195	98	148
Niger										
Millet										
AREA (1,000 Ha)	3,385	3,200	3,500	4,989	4,675	4,900	4,700	4,800	5,100	5,200
YIELD (Mt/Ha)	0.38	0.35	0.49	0.36	0.35	0.35	0.38	0.39	0.34	0.36
PROD (1,000 Mt)	1,293	1,133	1,700	1,800	1,658	1,725	1,800	1,850	1,725	1,850
Rice, Milled										
AREA (1,000 Ha)	35	32	30	30	30	35	30	30	30	30
YIELD (Mt/Ha)	1.49	1.50	1.33	1.33	1.33	1.29	1.53	1.53	1.50	1.50
PROD (1,000 Mt)	52	48	40	40	40	45	46	46	45	45
Sorghum										
AREA (1,000 Ha)	1,250	1,300	1,400	1,500	1,300	1,300	1,500	1,500	1,400	1,400
YIELD (Mt/Ha)	0.36	0.32	0.39	0.26	0.32	0.32	0.20	0.27	0.30	0.30
PROD (1,000 Mt)	452	415	550	387	421	420	307	400	425	425
Total Grains										
AREA (1,000 Ha)	4,670	4,532	4,930	6,519	6,005	6,235	6,230	6,330	6,530	6,630
YIELD (Mt/Ha)	0.38	0.35	0.46	0.34	0.35	0.35	0.35	0.36	0.34	0.35
PROD (1,000 Mt)	1,797	1,596	2,290	2,227	2,119	2,190	2,153	2,296	2,195	2,320



TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Nigeria										
Corn										
AREA (1,000 Ha)	2,000	2,969	3,393	3,371	3,482	3,500	3,550	3,500	3,450	3,400
YIELD (Mt/Ha)	0.95	1.96	1.72	1.71	1.81	1.83	1.83	1.43	1.42	1.44
PROD (1,000 Mt)	1,900	5,810	5,840	5,771	6,291	6,417	6,500	5,000	4,900	4,900
Millet										
AREA (1,000 Ha)	3,900	3,900	4,200	4,600	4,850	4,700	5,500	5,600	5,500	5,500
YIELD (Mt/Ha)	0.97	0.97	0.98	0.98	0.95	1.01	1.00	0.95	0.91	0.95
PROD (1,000 Mt)	3,800	3,800	4,100	4,500	4,600	4,750	5,500	5,300	5,000	5,200
Rice, Milled										
AREA (1,000 Ha)	640	1,208	1,370	1,482	1,214	1,666	1,700	1,658	1,650	1,650
YIELD (Mt/Ha)	0.84	2.07	2.32	2.36	1.80	1.32	1.33	1.18	1.12	1.12
PROD (1,000 Mt)	540	2,500	3,185	3,500	2,182	2,200	2,260	1,950	1,850	1,850
Sorghum										
AREA (1,000 Ha)	4,400	4,400	6,014	5,973	5,848	6,500	6,400	6,450	6,500	6,600
YIELD (Mt/Ha)	0.80	0.95	0.72	0.74	1.06	1.00	1.02	1.02	1.07	1.11
PROD (1,000 Mt)	3,500	4,185	4,346	4,437	6,175	6,500	6,500	6,600	6,930	7,300
Wheat										
AREA (1,000 Ha)	50	60	50	30	25	25	30	30	30	30
YIELD (Mt/Ha)	1.20	0.83	1.20	1.33	1.20	1.20	1.67	1.17	1.00	0.67
PROD (1,000 Mt)	60	50	60	40	30	30	50	35	30	20
Total Grains										
AREA (1,000 Ha)	10,990	12,537	15,027	15,456	15,419	16,391	17,180	17,238	17,130	17,180
YIELD (Mt/Ha)	0.89	1.30	1.17	1.18	1.25	1.21	1.21	1.10	1.09	1.12
PROD (1,000 Mt)	9,800	16,345	17,531	18,248	19,278	19,897	20,810	18,885	18,710	19,270
Senegal										
Corn										
AREA (1,000 Ha)	100	116	90	105	108	110	100	85	60	85
YIELD (Mt/Ha)	1.31	1.15	1.14	1.10	1.28	1.00	1.05	1.06	1.00	1.06
PROD (1,000 Mt)	131	133	103	115	138	110	105	90	60	90
Millet										
AREA (1,000 Ha)	953	865	879	774	978	936	890	975	850	950
YIELD (Mt/Ha)	0.67	0.59	0.67	0.58	0.67	0.59	0.75	0.62	0.50	0.58
PROD (1,000 Mt)	639	514	593	446	657	548	670	600	425	550
Rice, Milled										
AREA (1,000 Ha)	73	73	73	80	86	80	77	73	73	73
YIELD (Mt/Ha)	1.62	1.62	1.73	1.74	1.58	1.31	1.30	1.33	1.38	1.52
PROD (1,000 Mt)	118	118	126	139	136	105	100	97	101	111
Sorghum										
AREA (1,000 Ha)	132	173	100	131	126	142	148	150	130	130
YIELD (Mt/Ha)	0.96	0.85	0.78	0.89	0.78	0.87	0.88	0.87	0.85	0.85
PROD (1,000 Mt)	127	147	78	117	98	123	130	130	110	110
Total Grains										
AREA (1,000 Ha)	1,258	1,227	1,142	1,090	1,298	1,268	1,215	1,283	1,113	1,238
YIELD (Mt/Ha)	0.81	0.74	0.79	0.75	0.79	0.70	0.83	0.71	0.63	0.70
PROD (1,000 Mt)	1,015	912	900	817	1,029	886	1,005	917	696	861



TABLE 21 (CONTINUED)

WEST AFRICA: AREA, YIELD AND PRODUCTION										
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Sierra Leone										
Corn										
AREA (1,000 Ha)	11	11	12	13	14	10	8	10	10	10
YIELD (Mt/Ha)	1.09	1.18	0.92	0.85	0.86	0.90	1.00	1.00	1.00	1.00
PROD (1,000 Mt)	12	13	11	11	12	9	8	10	10	10
Millet										
AREA (1,000 Ha)	17	10	14	14	14	14	14	14	14	14
YIELD (Mt/Ha)	1.35	1.10	1.21	1.21	1.21	1.29	1.07	1.07	1.07	1.07
PROD (1,000 Mt)	23	11	17	17	17	18	15	15	15	15
Rice, Milled										
AREA (1,000 Ha)	370	310	255	354	382	328	230	290	275	275
YIELD (Mt/Ha)	0.84	0.77	0.94	0.81	0.76	0.74	0.74	0.81	0.91	0.76
PROD (1,000 Mt)	310	240	240	287	292	243	170	235	250	210
Total Grains										
AREA (1,000 Ha)	398	331	281	381	410	352	252	314	299	299
YIELD (MT/HA)	0.87	0.80	0.95	0.83	0.78	0.77	0.77	0.83	0.92	0.79
PROD (1,000 Mt)	345	264	268	315	321	270	193	260	275	235
Togo										
Corn										
AREA (1,000 Ha)	200	150	150	150	200	170	260	380	380	380
YIELD (Mt/Ha)	1.44	1.47	1.62	1.93	1.95	1.47	0.87	1.05	1.18	1.18
PROD (1,000 Mt)	287	220	243	290	390	250	225	400	450	450
Millet										
AREA (1,000 Ha)	250	200	270	280	346	275	350	325	300	300
YIELD (Mt/Ha)	1.00	0.78	0.63	0.67	0.58	0.47	0.57	0.49	0.60	0.60
PROD (1,000 Mt)	250	156	171	187	201	130	200	160	180	180
Rice, Milled										
AREA (1,000 Ha)	22	22	22	23	28	41	40	55	50	50
YIELD (Mt/Ha)	0.59	0.59	0.59	0.65	0.71	0.61	0.63	0.73	0.60	0.60
PROD (1,000 Mt)	13	13	13	15	20	25	25	40	30	30
Total Grains										
AREA (1,000 Ha)	472	372	442	453	574	486	650	760	730	730
YIELD (Mt/Ha)	1.17	1.05	0.97	1.09	1.06	0.83	0.69	0.79	0.90	0.90
PROD (1,000 Mt)	550	389	427	492	611	405	450	600	660	660
West Africa										
Total Grains										
AREA (1,000 Ha)	28,051	28,628	32,444	34,768	35,188	36,714	37,298	37,650	36,722	37,016
YIELD (Mt/Ha)	0.77	0.93	0.94	0.88	0.93	0.91	0.92	0.87	0.86	0.88
PROD (1,000 Mt)	21,722	26,651	30,590	30,740	32,724	33,462	34,388	32,854	31,486	32,754

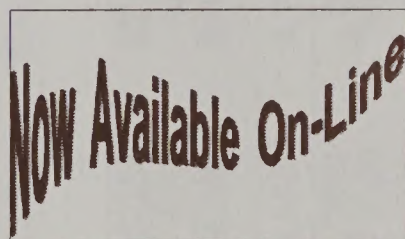


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